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Suggestive Economies of Hospital Planning in the Admission, Room, and Ward Service[1]

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Mr. Chairman, Sisters, Ladies, and Gentlemen:

WHEN invited to conduct this clinic on "Suggestive Economies of Hospital Planning in the Admission, Room, and Ward Service Sections," I was told not to prepare a long, theoretical paper, but to make an interesting talk and illustrate it with the equipment before us. Unfortunately, I am not so gifted as to talk extemporaneously, and I, therefore, beg your indulgence in reading from this prepared paper the main features of the subject, with the promise of occasional diversion to illustrate or emphasize particular points.

At the outset, let me say that true economies do not result from the selection of cheap materials, or in the purchase of cheap equipment. First cost should not be the only consideration; materials that are long lived, that require few repairs over a period of years are, within reason, the more economical regardless of price.

The major economies in hospital construction and operation are the result of careful planning. A well-designed hospital means a correctly arranged building, with each department properly correlated to others, with proper floor area, so situated as to facilitate service with the minimum effort. Not only should the function of the department or room be considered but its interchange of service with other departments. Its essential equipment, which it is well to place in preliminary sketches, should also be carefully studied to include essentials and eliminate nonessentials.

Admitting Room and Emergency Suite

Let us first discuss the admitting room and emergency suite. This department is arranged for the reception of new patients. These may be ambulance or ambulatory patients. The first of these arrive by way of the ambulance entrance and are hurriedly brought into the hospital and taken to the emergency or major operating room, or to a private room.

In this department there are few economies to suggest, except to see that the receiving and emergency rooms have not been oversized. This department should be arranged for the ambulance patient to enter at the rear or side of the building. This entrance should be so placed as to be out of view of other hospital patients, thus shielding them from any unpleasant or shocking impressions. Over the entrance doors there should be a large canopy to protect the patient from inclement weather while being removed from the ambulance. The doors of entrance must be of such width as to provide for the easy handling of a stretcher, with a vestibule of sufficient depth to allow the doors to be closed with the stretcher inside.

From the vestibule the patient should pass into a corridor or receiving room, the receiving room being not over 10′0″ wide by 14′0″ long, and equipped with a bath slab for the cleaning up of the patient before his entry into the emergency operating room or elsewhere. There should also be a disposal sink and a builtin cupboard for linens. The accident patient on entering the receiving room should have his clothes removed, be bathed, and taken into the emergency operating room which should adjoin and be directly connected with the receiving room, and located so that it is not over 15′0″ away from the patients' elevator.

This room need not be more than 12′0″ wide by 16′0″ long. Any area in excess of this size becomes waste space and a thing to be avoided. I find on visiting many hospitals that emergency operating rooms are often made nearly as large as major rooms. This practice is a mistake, as frequently even in large hospitals the emergency room is not used over two or three times a week, and the work there is the least that will suffice to prepare the patient for the essential operation in the major room. It, therefore, seems unwise to occupy excess space for this room when in all probability it could be put to a more useful purpose.

Many hospitals have built their emergency suite with tile floors, and walls wainscoted with tile from floor to ceiling, a practice which seems to me entirely unnecessary, as I am convinced that a wainscoting over 5′0″ in height has very little value for sanitary purposes.

The emergency room should be equipped with a surgeon's sink with sterile water supply, instrument sterilizer, builtin blanket warmer, builtin instrument cabinet, and builtin cupboard or case for sterile and nonsterile dressings.

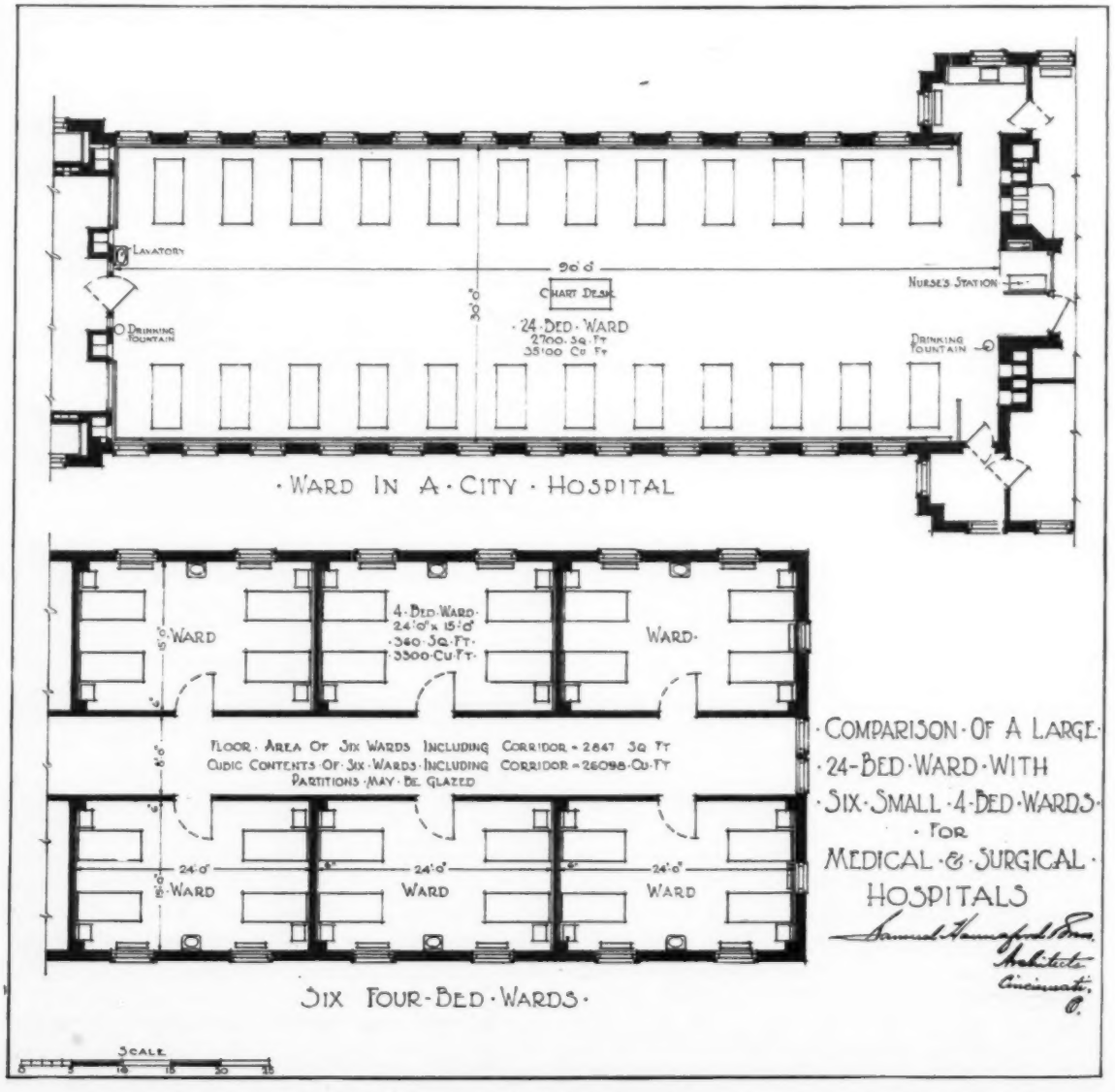
[1]Paper read at the Hospital Clinical Congress, June 24, 1927.

The movable equipment would consist of an operating table, dressing table, anesthesia apparatus, instrument table, irrigator stand, anesthestist's table, and stool, double-bowl stand with arm immersion, shadowless operating-room light, portable light, soiled-linen hamper, and waste pail.

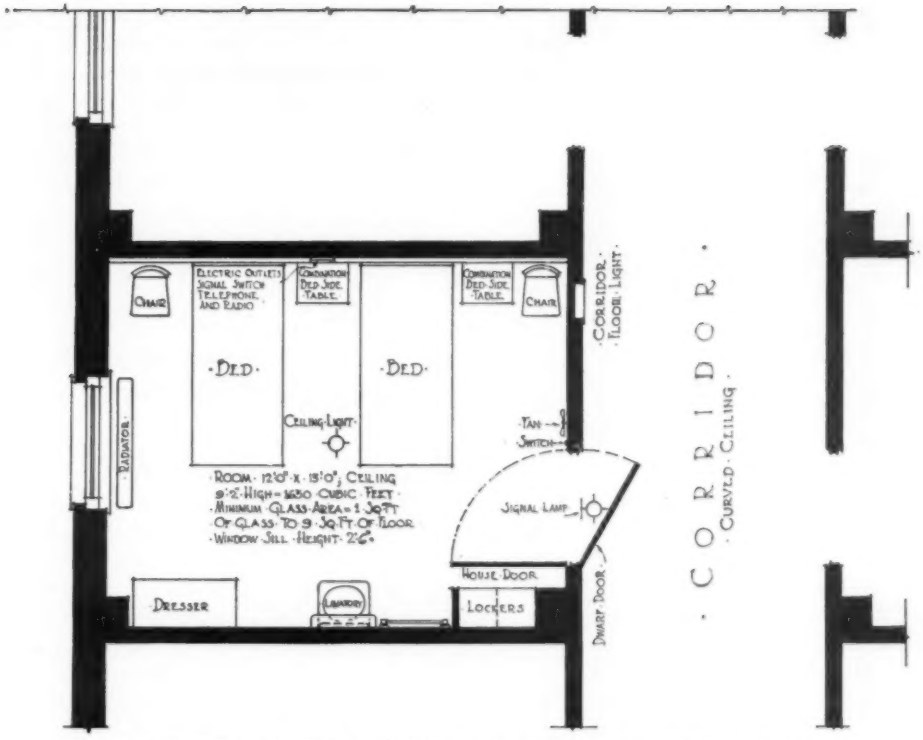
In the large general hospitals, in addition to the above, there should be provided patients' dressing rooms, baths, and examination rooms. These are unnecessary in private hospitals unless they come in connection with the outpatient department. Where emergency cases are assigned to wards, as is frequently the case in municipal or public hospitals, the provision of a small ward exclusively for night service, prevents disturbance of other inmates at a time that should, if possible, be devoted to sleep.

The second type of patient is known as the "ambulatory patient," who comes to the hospital with a friend or relative. On entering, the patient's first contact is made with the information desk, where he informs the clerk that Doctor "So and So" has previously engaged a room for him. The information clerk or the relative escorts the patient to the admitting office and sees that the registration blank is properly filled out and signed. An orderly or nurse is now called to accompany the patient to his room. In the case of the ward patient the orderly takes him to the admitting room where his clothes are removed and he is given a bath and then taken to his assigned bed in one of the wards.

Provided the dimensions of the rooms be reasonable, there is little that can be done to economize in the main department of admittance, except a rather radical departure from what may be termed the standard arrangement that has been employed for years. I have particular reference to the public reception room. It has



COMPARISON OF 24-BED WARD WITH SIX 4-BED WARDS. THE MODERN TENDENCY IS TOWARD SMALL WARDS.
Samuel Hannaford & Sons, Architects, Cincinnati, Ohio.

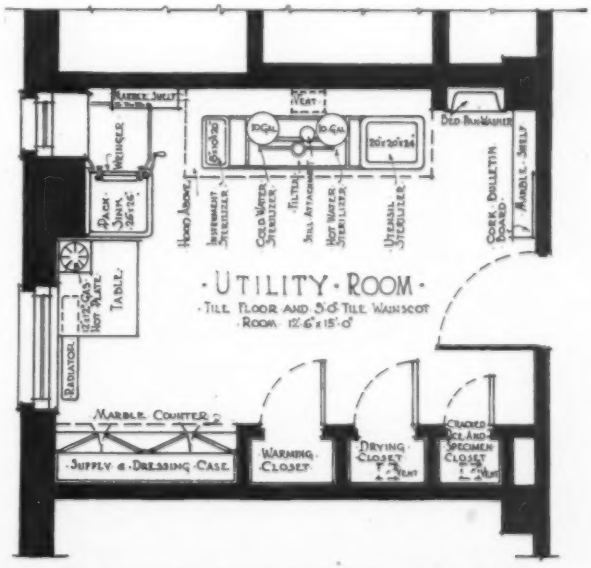


TYPICAL SEMIPRIVATE PATIENTS' BEDROOM FOR MEDICAL AND SURGICAL HOSPITAL.
Samuel Hannaford & Sons, Architects, Cincinnati, Ohio.

been common practice among consultants, administrators, and architects to plan hospitals with the main entrance door near the center of the building. On entering, you come into a vestibule, then pass into a spacious lobby with a large reception room on one side and the business office on the opposite side. This arrangement is a good one and I would be the last to condemn it, but if economies must be effected, then I would suggest the elimination of the large reception room entirely and an increase in the size of the spacious lobby, slightly, to let the lobby serve the dual purpose of lobby and reception room. There should be no serious objection to this arrangement, except in the larger institutions. Take, for example, a 200-bed medical and surgical hospital. I have found by personal visits that there are seldom over ten people in the reception room at any one time and more often only two or three. Visitors usually wait in the solaria on the various floors and since this is the case, why not dispense with the reception room and combine it with the lobby?

Assume that your building plans call for a 100-bed hospital with a reception room 16'0" square and a lobby 17'0" by 20'0". In a hospital of this size there would be little need of increasing the lobby as it is ample in area to serve both as lobby and reception room. By the omission of the 16'0" by 16'0" reception room, that area would become available for other uses, or if it were lifted bodily from the plan a saving of 2,816 cubic feet would be effected, worth approximately $2,250. To me this seems worthy of consideration.

Further economies may be effected in the architectural treatment of the lobby floor, walls, and ceiling. Our office has, in common with others, on occasions been guilty of extravagance in lobby design, by using marble floors, polished-marble wall surfaces, and ornamented plaster ceilings. You should not be severe in your criticism of this practice, as we have all been striving to give the patient and visitor the best possible impression as he enters the building and this treatment accomplishes the purpose well. However, it is possible to obtain a very satisfactory effect in a more economical way. For example, I can cite you the Children's Hos-



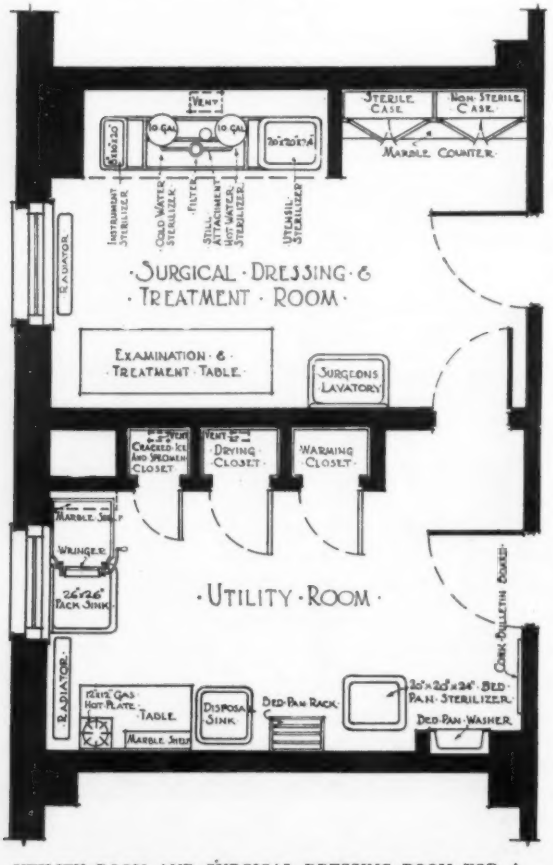
UTILITY ROOM WITHOUT A SURGICAL DRESSING ROOM ON SAME FLOOR FOR A MEDICAL AND SURGICAL HOSPITAL.
Samuel Hannaford & Sons, Architects, Cincinnati, Ohio.

pital in Cincinnati, where the lobby floor is made of brass-jointed terrazzo, with walls and ceilings formed of buff-colored rough plaster. The effect is highly pleasing. The addition of marble floors and wall surfaces in this lobby would add a considerable item of cost and but little to the room's beauty. Its only advantage would be permanence and a suggestion of sterility, and it becomes a question as to whether these advantages are worth the difference in price.

Private Room and Ward Service

We now come to the most important section of the hospital, the private-room and ward service section For the purpose of this discussion I am going to assume a private-room floor having approximately thirty beds.

In the opinion of many, the ideal size of private room for the medical or surgical patient is 10′0″ wide by 16′6″ long, with a ceiling height of 9′2″. It is seldom that a hospital can afford such a room where economy is to be considered. I, therefore, suggest a room 10′0″ wide by 15′0″ long as ample in area for a private room, with a ceiling height of 9′2″. Many of our states legally require a minimum floor area of 100 square feet for private rooms, and 90 square feet per ward bed, with a cubic content of 900 cubic feet for a private room and 820 cubic feet for a ward bed. I refer to these legal requirements, so that you will understand the room sizes mentioned are not in any way minimum, as, for instance, the 10′0″ by 16′6″ room has a cubage of 1,513 feet, which is 50 per cent in excess of the legal demand; a room 10′0″ by 15′0″ with a ceiling height of 9′2″ contains 1,375 cubic feet, which is 37 per cent more than the law demands.



UTILITY ROOM AND SURGICAL DRESSING ROOM FOR A MEDICAL AND SURGICAL HOSPITAL.
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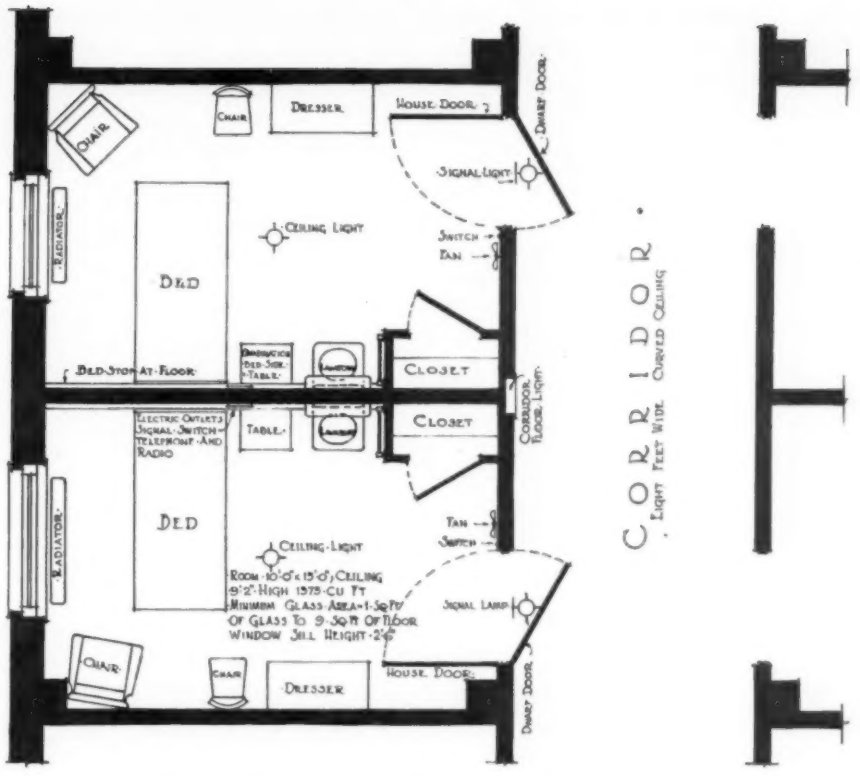
By observation in hospitals that my firm has planned I have found the 10′0″ by 15′0″ room a very desirable one from the patient's standpoint. However, you will find in many hospitals private rooms 12′0″ by 17′0″ with 10′0″ high ceilings. A room of this size is, of course, much preferred by the average patient, but in view of the very general protest against excessive hospital charges, it certainly seems unwise to allot more than the necessary space to each patient. David Harum says "A little too much is just about right," and I place the emphasis on "little." A room 12′0″ wide by 17′0″ long by 10′0″ high contains 2,040 cubic feet, which is 665 cubic feet more than the 10′0″ by 15′0″ room previously mentioned. By oversizing this room 665 cubic feet, there is unnecessarily spent or wasted approximately $180 per room, and assuming thirty bedrooms on the floor, a sheer waste of $5,400 for the floor, not including the incidental loss in increased corridors and service rooms. It should also be mentioned that the oversize room carries with it always an increased maintenance cost for painting, heating, and cleaning.

Can you not now see that the greatest economies effected in any building come in the correct planning and sizing of rooms? Your architect must be thoroughly familiar with hospital routine technic and must know the department relations, and in addition he should be an artist and a competent builder.

When the architect plans your building he will need your close cooperation and it is your duty to thoroughly examine the drawings and see that all rooms are of correct size and rightly located in relation to others and relation to the service required. A patient should be routed through the hospital in much the same way as an article goes through a manufacturing plant.

Possibly there are those present who do not know how a private room should be planned to give the patient the most comfort, and at the same time be arranged for the convenience of the doctor and nurse. Let us assume an ideal room size, 10′0″ wide by 15′0″ long. On the outside wall of the room should be placed the radiator directly beneath the window; 3′0″ from the wall should be placed the bed, which occupies three (3′0″) additional feet, and leaves a space of 9′0″ to the corridor wall of the room. In this 9′0″ space place the bedside table and next to it the lavatory and clothes closet. The reason for placing the lavatory on the same side of the room as the head of the bed, is for the convenience of the nurse in bathing the patient. As is customary in most hospitals, a pan of water is drawn from the basin which is placed on the bedside table and then the nurse works directly from the pan. With the arrangement I have just mentioned, the only thing required of the nurse is to pull the bed out of position over to the lavatory and then bathe the patient directly from the



TYPICAL PRIVATE PATIENT'S BEDROOM FOR A MEDICAL AND SURGICAL HOSPITAL.
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lavatory. In this way the patient is bathed with running water and not from water used over and over again from a possibly infected wash basin. You can readily see that all equipment when properly arranged easily fits a room of this size, namely, 10'0" by 15'0", is convenient for the nurse, and just as desirable from the patient's standpoint.

Another detail in connection with the private bedroom which I will recommend, is the use of the screen or "dwarf" door in addition to the regular house door. I mean by the house door the large one which completely closes the room off from the corridor. This door is usually 3'9" wide by 7'0" high, opening directly into the room. You will find in many hospitals directly over the house door a transom for ventilation, but as so often happens, the nurse forgets to open or close it and depends on ventilation finding its way through the window. Of course, window ventilation is the best, but there are times when a patient becomes uncomfortable if his room is ventilated by the opening of the window. It is our practice to install, in addition to the house door, what is known as a "dwarf" or screen door which is fastened to the corridor side of the door frame. If any of you remember the pre-prohibition days, you will recall that in all saloons there was a small screen door between the entrance lobby and the bar room. This is the same type of door I refer to, except, instead of glass panels in the door, there is a washable fabric hung on brass rods. The bottom of the door is 18 inches off of the floor. From the bottom of the door to the top it is 4'6". From the top of the door to the top of the door frame it is one foot. This screen assures reasonable privacy but permits free access and circulation of air over and under the door, and to a certain degree it makes the patient feel that he is a part of the activities in the hospital as he can see from his bed, people walking through the corridor. This, you will admit, has a certain therapeutic value.

There is no great economy connected with this door arrangement but for the same expenditure you receive a much higher value. The omission of the transom will pay for the screen and probably show a slight saving in cost.

The patient's bedroom window must also be given consideration. I find that many hospitals have adopted all sorts of ventilating louvres which they place in their windows. To me this seems an extravagance, because your sash can be built in such a way at no additional cost that you can get proper ventilation at the point where the upper and lower sash meet; in other words, at the meeting rail. A window 3'6" wide, opened ¾" at the meeting rail will give you 31½ square inches of venting area at this point. This can be accomplished by making the bottom rail of the sash 5" deep. Your window sill being set up 1½" above the sub-sill, permits raising the lower sash 1½" without a draft coming in at the window sill, but forms a vent opening at the meeting rail. This is a small economy but with three or four hundred windows in the building, a saving of

$4 per window for ventilating fixtures means a reduction of $1,600 in the building cost.

The question of flooring holds considerable interest. We find in one hospital a floor with a terrazzo base and border with the center section made of ¼" rubber. Again, we find the same type of floor with the center section of linoleum. Then there are hospitals that use wood floors. From my own experience as a patient, I much prefer the solid terrazzo floor. It is a hard material and has durable qualities, and is also pleasing to the eye; it can be cleaned easier than any of the other floors; neither is it damaged by water or liquids dropping on it. The question of its being noisy is, of course, negligible. When you use terrazzo floors, you should place thereon small washable rag rugs. Terrazzo costs about 65 cents per square foot, whereas a wood floor laid on sleepers and varnished will cost 40 cents per square foot; the rubber floor costs approximately $1 per square foot; and linoleum costs 30 cents per square foot. In view of the price, appearance, and enduring qualities, I cannot help feeling that terrazzo is the more economical, regardless of price.

I am not going to suggest, for the sake of economy, cement-finished floors. We have used them on occasions when minimum first cost seemed imperative and we have done it with the full knowledge of the hospital authorities, but in each instance when the building was fully completed the hospital authorities have regretted their action.

Semiprivate Room

The semiprivate room, designed to care for two patients, should be equipped the same as a private room, except that it should have two closets or clothes lockers, two beds, and double nurses' call system.

The room need not be larger than 12′0″ wide by 15′0″ long, with ceiling height 9′2″. In a room larger than this the excess in area is waste.

Wards

Regarding wards: Are we going to cling to the old practice of herding large groups of sick people into one large room, or shall we break away from this idea and build public wards with four to six beds in them? I must admit that the old practice is more economical both from a building cost and administration standpoint, but have we no regard for the patient's peace of mind and physical comfort? A patient in the large public ward not only has to endure his own physical pain, but the suffering of those about him. How anyone ever recovers is a mystery to me.

I can offer no solution for cutting costs in ward construction, but I am going to give you an approximate idea of the relative costs between the large and small wards. For example, I will take a ward in the Cincinnati General Hospital containing twenty-four beds. This room measures inside 30 feet wide by 90

A GROUP OF ATTENDANTS AT THE PONTIFICAL HIGH MASS AT ST. JOHN'S CATHEDRAL, AT THE OPENING OF THE HOSPITAL ANNUAL CONVENTION OF THE INTERNATIONAL CATHOLIC

feet long, or a total of 2,700 square feet, multiplied by a ceiling height of 13 feet, gives a total cubic content of 35,100 cubic feet.

Today if you would tell me to design wards for 24 beds, I would advise the use of six small wards, each containing four beds. These would be arranged with three wards on the west side and three on the east side of the building with an 8-foot corridor separation. Each ward would measure 15′0″ wide by 24′0″ long, with a ceiling height of 9′2″. The total cubic contents of the six wards, including corridor and partition thicknesses, would amount to 26,098 cubic feet, or 9,002 cubic feet less than that contained in the ward of the Cincinnati General Hospital.

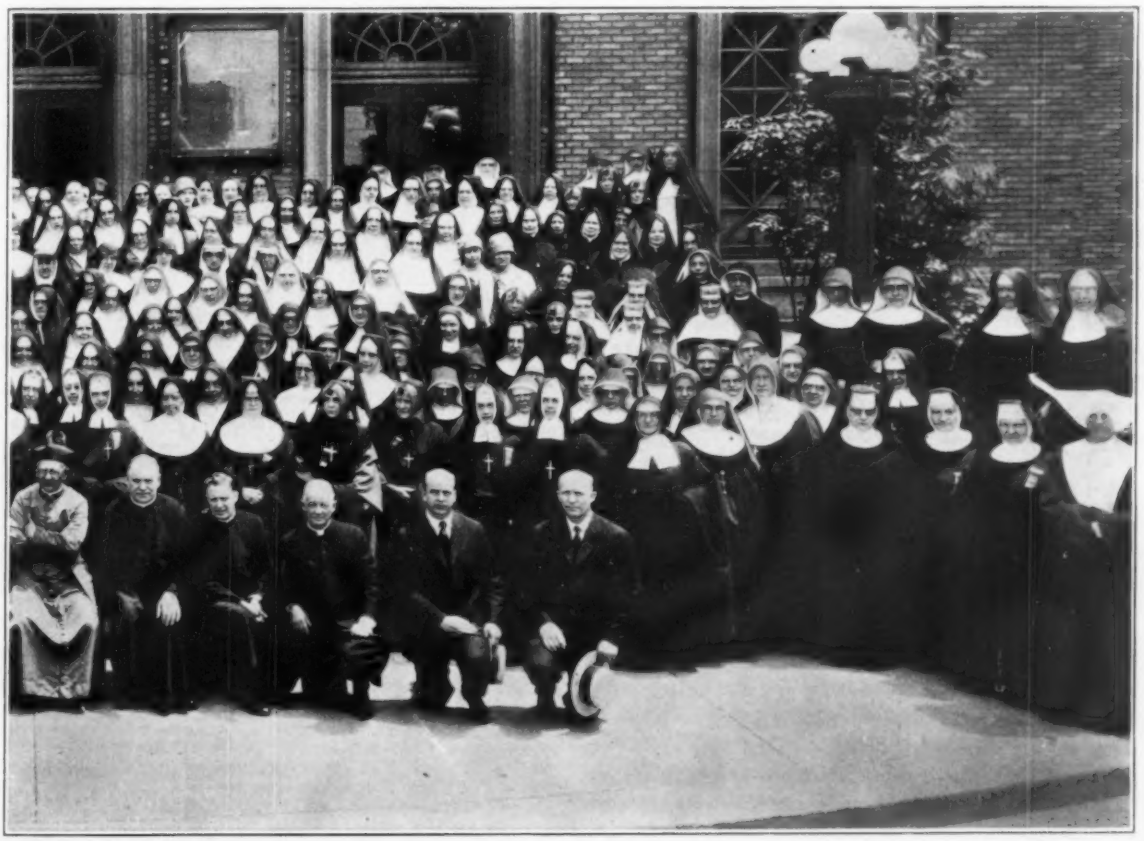
There would be a large saving in cubic contents and brick walls, but there would be added more plumbing, painting, plastering, tile partitions, terrazzo floors, and other miscellaneous items. From an estimate, actually made by a general contractor for reproducing the two units today, the difference in cost for the six small wards over the one large ward would amount to approximately $800, or $33.50 per bed. In view of this slight difference in cost I think you would be justified in seriously considering the abandonment of the large ward in favor of the small units.

There, of course, comes up the question of the nursing service. Good nursing practice demands for day duty one nurse for every four ward patients, and one nurse for every ten ward patients for night duty, so there is no increase in your nursing staff as one nurse would care for each ward.

The large ward has always been undesirable from the patient's standpoint, and I cannot help but recommend the use of the small ward in every case, whether it be a private or a municipal hospital. The floors, walls, doors, windows, etc., should be treated the same in the wards as I have suggested for the private room.

Utility Room

Next in order for discussion is the utility room, the most serviceable and used room in the building. It should never be placed more than 90′0″ from the farthest bedroom, and this should occur only on a private-room floor where the nursing service is not as great as on the ward floor. On a ward floor I would say the utility room should never be placed more than 45′0″ from the farthest bed. In that case a utility room should be placed between the second and third of the 4-bed wards in the 6-ward arrangement. The daily burdens of the nurse should not be added to by compelling her to walk great distances between the patient's bed and service rooms. By a little careful planning and foresight this distance can be cut down to the minimum. This is economy in human effort, if not in planning.



CLINICAL CONGRESS, THE TWELFTH ANNUAL CONVENTION OF THE CATHOLIC HOSPITAL ASSOCIATION, AND THE FOURTH GUILD OF NURSES, MILWAUKEE, WIS., JUNE 20-24, 1927.

In the planning of the utility room, it should be arranged with an entrance door hung on double-acting hinges, so that the nurse will have only to throw the force of her weight against the door to open it.

As she enters the room the first piece of equipment she should find is the disposal sink or bedpan washer. Next to the bedpan washer would come the bedpan sterilizer and bedpan drip rack, then a disposal sink. I am assuming in this arrangement that there is a treatment or surgical-dressing room on the floor.

I am not going to advocate the use of the bedpan sterilizer in connection with the utility room as it is a debatable point. There are many hospital authorities who think it unnecessary, except in the maternity department. It is not a question for me to decide but should be determined by hospital authorities.

Where there is no treatment or surgical-dressing room on the floor, the utility room should include an instrument sterilizer and a battery of water sterilizers so that at all times there will be an ample supply of sterile water.

There should also be provided builtin closets, three in number; the first serving as a specimen closet and cracked-ice chest; the second as a bedpan warmer, blanket warmer, and solution warmer; the third as a drying closet.

In constructing the specimen closet the interior should be lined with galvanized iron, with a 6″ x 6″ vent in the ceiling. There should be one removable shelf constructed of ½″-mesh tinned wire, the bottom shelf being made in the form of a pan so in case of breakage of a bottle the whole pan can be easily removed for cleaning. The door to this closet should be cut 2″ short at the bottom to allow the free circulation of air to the vent in the ceiling. The lower section of the closet for storage of cracked ice should be cut off completely from the upper section, and be constructed in much the same manner, except that the door should be air tight.

The warming closet would be constructed with the top section made into pigeon holes and of such size to receive six bedpans. Below the bedpan section you would place ¾″-mesh tinned wire shelving to hold at least one dozen blankets, or a sufficient number to take care of the ordinary floor demands. The bottom section would have a floor made in the form of a pan and constructed of galvanized iron, this for the placing of solutions which require a warm temperature. I have mentioned before the reason for using a pan so that in case a bottle is broken the solution does not run out on the floor of the closet.

The drying closet is used for the drying of linens, wash rags, etc., that are washed in the utility room. There should be in the top of the closet a series of removable brass rods for hanging the linens. There are two ways to heat the warming and drying closets. First of these is by steam coils, second by electric heaters such as we used to find in street cars. The electric heater is the most desirable because it takes less space and it is easier to operate as it requires only the turning of a switch. The expense of operation, however, is greater than steam. With the steam coils it is necessary to use high-pressure steam. You also have to have a specially constructed steam coil which is provided with a supply valve, thermostatic trap, and check valve.

Next to your drying closet you would install a pack sink and on the outside wall a hotplate for the heating of solutions. In the center of the room should be placed a small work table. When there is no surgical-dressing room on the floor you will also require a cupboard for surgical dressing.

It is rather difficult to point out just where economies can be gotten in this room, but I am going to show you a utility-room plan where there is a surgical dressing and treatment room on the floor, and another plan where there is no surgical and treatment room on the floor. These two plans will demonstrate the proper placing of equipment and the exact space into which it can be most economically put.

It is not economy to make this room too small. It must be of such area that a nurse can work comfortably. I, therefore, present two plans for your examination, showing the proper arrangement of equipment in the smallest amount of space. As mentioned before, your saving comes in proper planning which reflects itself in the total cubic contents of the building.

The floor of the utility room should be made of ceramic tile with the walls wainscoted with a "commercial" grade of white glazed tile extending to a height of 5′0″. The only economy that might be suggested in connection with the floors and walls is in the use of terrazzo, and I do not want to recommend its use except when it is absolutely necessary to effect economies. Terrazzo is an absorbent material and becomes slick when wet and is dangerous to walk over. The only claim it has for use is the fact that it is cheaper than tile and is easily cleaned.

Nurses' Station

The nurses' station occurring on the private-room floor is, of course, a necessity and in connection therewith I have no suggestion for economies, except that in planning your floor it should be allotted only a sufficient amount of space to function properly. It should be so situated that it controls all avenues of approach to the floor. In other words, the nurse at the station should have an unobstructed view of all corridors, elevators, and stairs. Here would be located chart racks, telephone, nurses' signal annunciator, medicine closet and sink, clock, radio switch, etc. A space 11′0″ long by 7′0″ wide is ample.

In conclusion, permit me to say that I appreciate very much your interest and attention.

Issues General Contract. The general contract for the construction of the new Sisters of Mercy Hospital at Valley City, N. Dak., was awarded to Contractor Thomas Powers of Fargo. Mr. Powers expects to commence operations on the job immediately, and work will be pushed rapidly on this enterprise.

Addition Opened. An addition to St. Mary's Hospital, Amsterdam, N. Y., was opened March 13.

The Fourth Annual Convention of the International Catholic Guild of Nurses

THE annual banquet of the Guild was held at the Plankinton Hotel, Milwaukee, at 6:30 P. M., June 22, and was attended by many groups of nurses from Milwaukee; Chicago; Davenport, Iowa; Gary, Indiana; Louisville, Kentucky; New York; Brooklyn; and other places. A very interesting program was enthusiastically received by those present. It included addresses by Rev. E. F. Garesché, S.J., general spiritual director of the Guild, who gave a welcome to the visiting delegates and explained the purpose and ideals of the Guild; by Miss Lyda O'Shea, president of the Guild; Miss Mary Roberts, editor of the *American Journal of Nursing;* Miss Meta Pennock, editor of the *Trained Nurse and Hospital Review;* Miss Anna Eldridge, formerly president of the American Nurses' Association; Miss Van Coy, president of the Wisconsin State Nurses' Association; Miss Bradley, superintendent of nurses, Mount Sinai Hospital, Milwaukee; Miss McCarthy, public-health nurse of Oconto, Wis.; Rev. Father Coudeyre, S.J., regional spiritual director of the International Catholic Guild of Nurses for the Northwest; Rev. A. C. Fox, S.J., president of Marquette University; and others. Mr. Phil Grau, of Milwaukee, very entertainingly filled the role of toastmaster.

Tuesday morning the program of the convention began with a singularly interesting and important series of papers. Father Garesché, S.J., general spiritual director, presided at the meeting and introduced the speakers, the first of whom was Miss Lyda O'Shea, who delivered the president's address, reviewing the success and progress of the Guild during the past year and speaking especially of the enterprises now on hand for the building up of a central headquarters and the plan of group insurance for the members. Sister Helen Jarrel, superintendent of nurses, St. Bernard's Hospital, Chicago, and Sister Lidwina, Mercy Hospital, Chicago, gave two very timely and well-written papers on "Casting the Nursing Curriculum onto an Educational Mold." These papers were followed by a discussion by Father Mahan, S.J., and were listened to with rapt attention by a very large audience, which had assembled in Plankinton Hall. Miss Laura Logan read a paper on "Planning, Equipment, Organization, Management and Procedure of the School of Nursing." The intense interest with which these papers were listened to and the applause and praise they received were strong proofs of the appreciation of the audience.

After an informal luncheon at the Milwaukee auditorium, the nurses and their friends assembled again for a round-table conference conducted by Miss Lyda O'Shea. All the speakers at this round table were members of the Guild. Miss Mary M. Roberts, editor, *American Journal of Nursing,* was the first speaker and the subject assigned her was "The Nurse in the Changing World." Miss Roberts gave an able introduction to the whole program and her address was an interesting summing up of important points to be deliberated upon by the nurses. Anna Weisenhorn, R.N., assistant superintendent, St. Francis Hospital, Evanston, Illinois, spoke on "Nursing Education: Its Progress and Problems," and the discussion was assigned to Sister Mary Elzear, R.N., St. Mary's Hospital, Rochester, Minnesota. Elizabeth Flynn, R.N., president of the Davenport chapter of the International Catholic Guild then read a paper on "The Value of Higher Education to the Student Nurse from the Standpoint of the Private-duty Nurse," and this question was thrown open to discussion.

Next followed a paper on "The Correlation of Theory and Practice in the Study of Obstetrics," by Florence Kleinheinz, R.N., obstetrical supervisor, St. Elizabeth's Hospital, Chicago. Laura Mae Wright, R.N., of the American Hospital, Chicago, Ill., who was assigned to discuss this paper had unfortunately been called home on account of illness of her brother. Mary LaRue, R.N., public-health nurse, Milwaukee, then read a very interesting paper on "How Much if any Public-Health Training Should be Included in the Undergraduate Curriculum," which was discussed by Katherine McNamara, R.N., of the juvenile court, Chicago.

Kathryn McGovern, R.N., public-health nurse, Minneapolis, Minn., who was assigned also to discuss this paper was unable to be present, but sent in a very interesting discussion in writing. Next followed a paper by Elizabeth Paul, R.N., superintendent of nurses, Municipal Tuberculosis Sanitarium, Chicago, on "How Can Tuberculosis be Included in the Undergraduate Curriculum," which was discussed by Margaret Pillon, R.N., field nurse, Chicago.

Alice C. Patterson, nutrition expert, Children's Memorial Hospital, Chicago, then gave a paper on "Diet in Disease," which was discussed by Rosemary Swinehart, R.N., educational department, Borden's Farm Products of Illinois. Rose Bigler, R.N., superintendent of nurses, Peoria State Hospital, Peoria, Illinois, then read a paper on "What is the Place of Psychiatric Nursing and Mental Hygiene in the Undergraduate Course?" Caroline H. Soellner, R.N., superintendent of nurses, Roseland Community Hospital, Chicago, then gave a paper on "The Problem of Special Duty in a 100-bed Hospital." Miss Mary Walsh, of Gary, Ind., discussed this paper, and also gave a very interesting talk on group nursing. Mary Hubbuch, R.N., historian St. Joseph's Hospital, Louisville, Kentucky, had prepared a paper on "Training School Records." She was

unable to attend but her paper will be published in HOSPITAL PROGRESS.

At the end of the program the delegates of the International Catholic Guild of Nurses held their annual business meeting. All the officers of the previous year were reelected except Miss Shea, whose faithful service as treasurer was much valued, but who had sent word that the exigencies of her work made it impractical for her to continue as treasurer. Jo O'Connor, R.N., of Louisville, Kentucky, was therefore elected treasurer in her place.

Motions were made to approve in general the plan of group insurance, but to provide for the appointment of a committee which will have power to study this question maturely and, with the help of a committee of insurance actuaries and other business men, to submit to the Guild the best plan among those offered. The question of amendments to the constitution was also considered and a motion was passed to provide for the appointment of a special committee with power to receive suggestions as to amendments to the constitution and take such action as is expedient to make any necessary revisions. A motion was also carried unanimously expressing the mind of the Guild that a Sister should be made a member of the committee on the grading of nursing schools, so that the interests and viewpoints of Sister schools of nursing may be adequately represented thereon.

The thanks of the Guild are offered to all those who helped make the banquet and convention such a success.

The evening meeting, which was held at Plankinton Hall at 8:00 o'clock and was very well attended, began with an address by the chairman, Father Garesché, S.J., on the progress, plans, and ideals of the International Catholic Guild of Nurses. Father Garesché spoke of the singularly rapid progress of the Guild since its beginning about three years ago. He called attention to the interesting map displayed in the booth of the International Guild which showed by pins the location of the two hundred and sixteen cities in the United States where the Guild counts its membership and in the twenty-seven cities in Canada, the red pins showing where chapters have been formed. The geographical distribution of the Guild is thus seen to be very representative. From the Atlantic to the Pacific and from Canada to the Gulf of Mexico the Guild now counts its membership, and while a number of chapters were organized last year, a greater number will be set on foot this coming year.

The movement to establish the national headquarters on a firm financial basis is also a very useful and profitable one, and the group insurance plan gives more and more assurance of fruit and helpfulness to the members of the Guild the more it is studied and considered. A number of excellent offers have been made by various insurance companies and it will be the function of the group insurance committee, aided by a competent group of insurance actuaries and business men, to select the best plan and propose it to the members. The plans for the Guild for the coming year include the movement of closed retreats for Guild members wherever these are practicable, preferably in some house of retreats or some other suitable place where the nurses can obtain the benefit of quiet and seclusion. Where a closed retreat is not possible, the Guild should at least have some spiritual exercises for its members. Sometimes these may take the form of an open retreat in some church. In other cases the Guild members may be specially encouraged to join in with the exercises of the student nurses' retreats in the school of nursing.

Father Garesché spoke of the three-fold purpose of the Guild, to encourage the social and spiritual life of the nurse and her intellectual life. A number of pleasant entertainments have been held by various chapters during the year. Each chapter should make it a point to give a worth-while and well-prepared-for banquet each year at which the speakers should dwell on the three-fold purpose of the Guild and help to stir up enthusiasm for Guild work and Guild loyalty. The educational work of the Guild is also of prime importance. The forming of scholarship funds, the holding of lecture courses both for the Guild members and by the members for the benefit of the public, and the encouragement of personal study and self-improvement among Guild members ought to be one of the principal purposes of the International Guild and of the chapter officers. Sisters who are graduate nurses are specially welcome as members of the Guild.

The ideals of the International Catholic Guild of Nurses are the ideals of our Catholic schools of nursing and they are expressed in the Patroness of the Guild, who is the Blessed Virgin, and in its motto which is Christian Charity in Service. Father Garesché called attention to the fact that the Catholic schools of nursing, which now have 17,000 students in their care and are graduating each year some 5,000 trained nurses, must have in this time a great group of some 50,000 graduates in nursing service in the United States and Canada. This large and powerful group, however, is absolutely inefficient to help to spread or to maintain Catholic ideals without organization. If all who are interested in Catholic ideals rally to the Guild and do their best, we shall see a new era of fervent interest among the graduates of our Catholic schools. The Guild will also serve as an effective union of Catholic schools of nursing. We welcome also the cooperation of non-Catholics who are in sympathy with Catholic ideals.

The next speaker on the program was Doctor E. A. Fitzpatrick, dean of the graduate school of Marquette University, and a member of the committee on the grading of nursing schools. Doctor Fitzpatrick spoke on the grading of the schools of nursing and emphasized the point that the nurses and Sisters ought to cooperate actively with the work of the Guild by construc-

A GROUP OF MEMBERS OF THE INTERNATIONAL CATHOLIC GUILD OF NURSES IN ATTENDANCE AT THEIR FOURTH ANNUAL CONVENTION AND AT THE HOSPITAL CLINICAL CONGRESS AT THE MILWAUKEE AUDITORIUM, MILWAUKEE, WIS., JUNE 20-24, 1927.

tive criticisms and suggestions. He also emphasized the fact that the Catholic schools of nursing ought to have a representative on the committee, not as denominational institutions, but as the most important group of nursing schools which is not now adequately represented on the committee.

The last speaker on the program was Miss Meta Pennock, Editor of the *Trained Nurse and Hospital Review*, whose subject was the group insurance plan for the members of the International Catholic Guild of Nurses. Miss Pennock spoke from wide experience of the need of insurance for nurses and the difficulty which the nurses usually have in choosing the best plan. She remarked on the fact that the student nurses who are about to graduate are often besieged by insurance agents before graduation and that the policies they sometimes take are often strangely inadequate. It is a puzzle for the individual nurse to know what is the best insurance for her to take. By proposing group insurance and selecting the best policy with expert guidance, the Guild will be able to render splendid service to its members.

At the conclusion of the program a short address was given by Rev. C. B. Moulinier, S.J., president of the Catholic Hospital Association, who continued the discussion of the subjects treated during the morning session. Father Moulinier spoke in praise of the papers read by Sister Helen Jarrel, Sister Lidwina, and Miss Logan, and then emphasized the need of high ideals in nursing and the necessity also of great caution in planning out and determining the future of nursing schools which means so much both for the hospital and for the general public.

The large attendance which followed the program of the Guild with such attention was a proof of the interest and appreciation of all, and many of the Sisters and nurses spoke enthusiastically of the helpfulness and interest of the papers and discussions. Thus the fourth annual convention of the International Catholic Guild of Nurses leaves every one with a feeling of satisfaction and gratitude and with hopeful anticipation that the coming year will bring still further advances in the Guild's three-fold program of spiritual, social, and intellectual help and inspiration for the members and for other nurses.

One of the most interesting and consoling features of the conference was that so many of the Sisters responded to the invitation to become members of the Guild and went back to their own schools and hospitals with the expressed intention of organizing chapters of the Guild there as soon as possible.

The Convention and the Clinical Congress

Elmer W. Reading

THE Twelfth Annual Convention of the Catholic Hospital Association of the United States and Canada and the first Clinical Congress of North America conducted by the School of Hospital Administration of Marquette University, opened in Milwaukee with Pontifical High Mass at St. John's Cathedral on June 20, and closed with the afternoon clinics and business sessions at the Milwaukee auditorium on June 24.

The clinical congress was conducted under the auspices of the School of Hospital Administration, whose officers were assisted by committees of the Catholic Hospital Association, the International Catholic Guild of Nurses, the Hospital Exhibitors' Association, and the cooperating organizations. This cooperative arrangement, together with the very efficient management, brought about an attendance of over 1,700 persons,

registered, and others in attendance who escaped the eagle eye of the registration clerks.

Planned by Father Moulinier

When the idea of the clinical congress was suggested by Rev. C. B. Moulinier, S.J., regent of the College of Hospital Administration and president of the Catholic Hospital Association, there were those who doubted the practicability of so radical a departure from the former procedure of the C. H. A. conventions. But now there are many enthusiastic supporters of the idea.

Departmental Meetings

The outstanding feature of the congress was the "clinical" idea, i. e., the arrangement of group conferences or sectional meetings, according to the various departments of hospital service. These departmental meetings were, in general, associated with the exhibits of hospital apparatus. The "clinics" consisted of talks, demonstrations, and the answering of questions by physicians, surgeons, architects, dietitians, hospital superintendents, men engaged in the manufacture and distribution of hospital equipment, besides various experts and special investigators in the employ of commercial organizations.

The "clinical" program arranged by Father Moulinier, Dr. John R. Hughes, dean of the college, and their coworkers, included talks and demonstrations by many of the foremost authorities of the country. Groups of nurses from various hospitals were on hand to demonstrate points of technic and staff members were there to explain the technic of their hospitals.

Exhibitors arranged their displays of hospital apparatus in a manner to imitate as closely as possible the actual layout of hospital departments. Thus, with the aid of apparatus at hand, and, when necessary, also a corps of nurses, a speaker was able to demonstrate, as well as explain, the technic of various operations and treatments. For example, at one of the surgical "clinics" observed by the writer, Dr. John D. Claridge explained in detail the Lane technic as used in bone and joint surgery at Mercy Hospital, Chicago. He explained that this technic absolutely forbids the surgeon's hands coming into contact with the wound. All work is done by means of sterile instruments, preferably long ones. He also explained the methods of procedure in orthopedic surgery and correction of deformities, illustrating with splints, fracture, and extension apparatus borrowed from exhibitors. Then followed many questions from the audience, the answers to which were of interest to all present.

The breaking up of the congress into small groups of special workers seemed to stimulate interest and to encourage questions and discussions on the part of delegates themselves. Each delegate could attend the "clinic" of the department in which he was most interested and concentrate attention upon the work of that department.

The surgical, radiographic, and other departments requiring special apparatus were equipped from the exhibits of the various manufacturers whose representatives were, in some cases, asked to take part in the program. Some valuable information concerning the construction, use, operation, and care of equipment was gained from talks and demonstrations by the various exhibitors. These talks were, for the most part, quite free from commercialism, and brought to the listeners a

GROUP AT THE HOSPITAL CLINICAL CONGRESS, THE TWELFTH ANNUAL CONVENTION OF THE CATHOLIC HOSPITAL
THE MILWAUKEE AUDITORIUM.
The eight men in white uniforms are a group of first-aid workers, employees of the North Shore R. R. Co. Each of these men has
at the Clinical

realization of the very important part commercial men are taking in solving hospital problems.

The Manufacturer's Contribution

A great amount of research work and study is being done in the laboratories of manufacturing organizations and by students whose work is being supported by these companies. Just one instance of this is the work of the paint manufacturers in the study of the therapeutic value of color. The rooms of the modern hospital are now being decorated in accordance with scientific determinations regarding the physical and psychological effects of various colors upon patients.

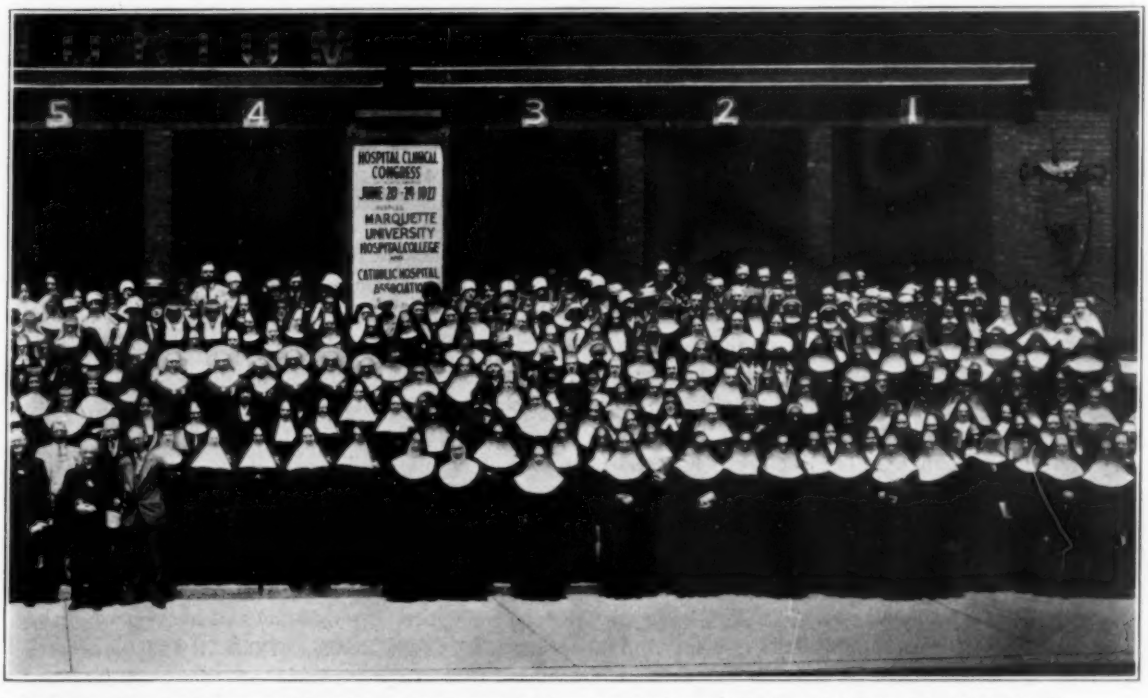
The exhibits themselves were of considerable educational value to the hospital personnel. In many cases apparatus such as sterilizers and radiographic equipment were shown in actual operation. There was even a complete laundry plant, doing real washing, drying, and ironing of linen and garments.

Education the General Theme

Being under the auspices of the School of Hospital Administration, the general spirit and purpose of the clinical congress was educational. The keynote to this theme was sounded in the addresses at the opening meeting by Rev. A. C. Fox, S.J., president of Marquette University, by Rev. C. B. Moulinier, S.J., president of the Catholic Hospital Association and regent of the College of Hospital Administration, and by John A. Lapp, LL.B., president of the National Conference of Social Work and director of the social action department of the National Catholic Welfare Council. These three speakers had for their theme "Education for Hospital Service." John R. Hughes, M.D., dean of the College of Hospital Administration, presided at this opening meeting. He explained the clinical and lecture program of the congress. Hon. A. C. Backus, LL.D., of Milwaukee, in his address, "Preventive Medicine and Research," spoke from the layman's viewpoint of the progress of medical knowledge and practice and the assistance that the layman can give in promoting health.

Father Fox stressed the need for a broader and more intellectual educational preparation of the hospital worker. Mere training, he said, is not sufficient. The patient, being, first of all, a human being, needs the service of heart and soul and mind as well as that of the hands. Mere training is not an adequate preparation for hospital service. "Eminent service," said Father Fox, "must mean, more and more, all that education can give to those preparing for the work." He pointed out the fact that works of charity are no longer accepted without question in the name of religion, but are judged for what they are worth in themselves. Hence, the need of increased education for service, in theory as well as in practice.

Dr. Lapp in his address gave reasons for the need of more education for hospital service. Education, he referred to as a magic thing that may be expected to do many things for the hospital. Our knowledge of hospital management must be organized and put to work. A hospital, he admitted, can be run without much knowledge of administration but the hospital that organizes the medical and other facilities properly, contributes the most to the sick. Such administration requires a vast amount of training and continuous training. It requires practical training, but more than practical training.



ASSOCIATION, AND THE FOURTH ANNUAL CONVENTION OF THE INTERNATIONAL CATHOLIC GUILD OF NURSES AT MILWAUKEE, WIS., JUNE 20-24, 1927.
received one or more medals for saving a life. With their leader in the center of the group they gave a demonstration of their methods
Congress.

Father Moulinier in his opening address referred to the efforts that the various medical, surgical, and hospital associations have been making to combat ignorance in the hospital field. The schools of nursing, he said, are improving standards. The education of a nurse does not mean merely the development of technical skill. If nursing is to be a profession, education for the profession should develop the mind. There is need of more mental culture. Other things being equal, the best-educated person is the best technician.

The Public Invited

One of the aims of the congress was to stimulate the growing public interest in hospital, medical, and health problems, and to this end, the public was invited to attend all the "clinics." The evening meetings were especially planned to interest the layman. The Monday evening meeting was given over to industrial surgery and accident prevention under the auspices of the National Safety Council. The Tuesday evening meeting considered community health and the hospital. It was held under the auspices of the American College of Surgeons. The Wednesday evening meeting, under the auspices of the United States Department of Commerce, Bureau of Mines, discussed health, accident prevention, rescue work, etc., in underground industry. The Thursday evening program considered nursing education. This meeting was held under the auspices of the International Catholic Guild of Nurses.

Nurses' Day

Thursday, June 23, was nurses' day at the congress. The fourth annual convention of the International Catholic Guild of Nurses was held in connection with the clinical congress and, besides the public program on Thursday evening, the guild conducted a morning and an afternoon session each with a well-filled program. Here again the theme was "education."

The morning meeting was scheduled to begin at 9 o'clock. Rev. E. F. Garesché, S.J., the international spiritual director of the guild, presided. The president's address was delivered by Miss Lyda O'Shea, president and executive secretary of the guild. Then followed a discussion of the organization of the nursing-school curriculum by Sister Helen Jarrell, R.N., superintendent of nurses, St. Bernard's Hospital, Chicago, and Sister M. Lidwina, R.N., Mercy Hospital, Chicago. Miss Laura R. Logan, R.N., dean of the Illinois Training School for Nurses, then read a paper on "Planning, Equipment, Organization, Management, and Procedure of the School of Nursing." Then followed a round-table discussion on nursing education led by the president, Miss O'Shea.

The afternoon program was given over entirely to a round-table conference on various phases of nursing, closing with a business meeting at which all the officers were reelected with the exception of the treasurer. As Miss Shea, last year's treasurer, can no longer serve, Miss Jo O'Connor of Louisville, Ky., was elected treasurer.

The guild held its annual banquet at 6:30 P. M., Wednesday, June 22, at the Plankinton Hotel, where distinguished speakers gave addresses. The members also enjoyed an informal luncheon at noon Thursday and an informal dinner Thursday evening at the Milwaukee auditorium. A fuller description of the nurses' convention may be found elsewhere in this issue.

The C. H. A. Convention

At the business meeting of the Catholic Hospital Association all the officers were reelected. Aside from the business meetings, all the activities of the association during its twelfth annual convention were generously merged into those of the clinical congress, the association having adopted for its own convention program the clinical conference of the Hospital Clinical Congress. Without this act of cooperation on the part of the Catholic Hospital Association the clinical congress would not have been practicable.

The Promoters' Problems

The Marquette University school of Hospital Administration with the Catholic Hospital Association, the International Catholic Guild of Nurses, the Hospital Exhibitors' Association, and the other organizations cooperating in the Hospital Clinical Congress of North America deserve a large measure of appreciation from all our hospital workers for the excellent manner in which the congress was planned and carried out.

Some little annoyance was noticeable from the fact that in order to use the exhibits as much as possible in the "clinics," several of the "clinics" were held simultaneously in the main arena of the auditorium. The noise in the large hall in the basement of the building especially interfered with the work of the dietetic "clinic" located in a section of that room. No doubt at future congresses this feature will be eliminated. Possibly a large high-school building or a medical-college building, or even a hospital building would be the solution. In case a school building should be used, the auditorium of the building could be used as the main exhibit hall, and the classrooms for the "clinics." If it should be possible to use a hospital for such a congress as this, that would certainly be an ideal solution of the problem. It may be that one of the large new hospitals, some of which are always under construction, could be "dedicated" by housing a hospital clinical congress before it becomes crowded with patients. With the experience gained from this congress a committee of promoters and exhibitors will, no doubt, be able to eliminate the difficulties encountered in a pioneer effort.

As stated above, the "clinics," on the whole, were remarkably free from commercialism. It is often not an easy task for a commercial man to talk in a noncommercial and purely professional manner regarding his products, but at a conference of this kind such a requirement is absolutely necessary. To keep such meetings strictly professional must be the constant aim of both the professional and the commercial people.

The Economics of Hospital Planning [1]

Charles F. Neergaard, Hospital Consultant, New York City, Lecturer on Hospital Planning, College of Hospital Administration, Marquette University, Milwaukee, Wis.

THE science of economics treats of material wealth and social wellbeing. The new science of hospital planning gives a new measure of thought to the patient's wellbeing and stresses economy, which to most of us is synonymous with economics.

Samuel Smiles, the old Victorian moralist, epitomizes economy as "the outgrowth of experience, example, and forethought." If we are frank with ourselves we must admit that hospital planning is too little influenced by experience, example, and forethought. Many a new hospital, when it is all complete, is a disappointment because those responsible failed to draw proper deductions from the institution's own past *experience,* to take advantage of the *examples* of progress and failure elsewhere, and to give *forethought* to future expansion. Each hospital seems somehow to stand on its own hilltop, in splendid isolation, benefiting but little from the mistakes and triumphs of the hospital across the valley. Each is prone to work out its own salvation in its own way by the expensive method of trial and error.

Hospital literature is filled with principles and theories but bare of simple statements of how to carry them out. Each month the hospital magazines publish cuts, plans, and glowing descriptions of new hospitals, but they fail to say what is wrong with the picture. If one of them would run a series of articles, sincerely critical, entitled "Mistakes Which We Made in Our New Hospital," it would render a constructive service. With what enthusiasm is a new hospital always shown and described by its trustees, staff, and superintendent! It is only human to be proud of accomplishment, but it is also only human to err and to be reticent about our errors. To get a frank opinion of how good it is one must usually go through a hospital with the superintendent who succeeded the one who helped plan it.

Building is always a fresh and untried adventure, with uncertainty and surprises as the only sure things about it. When a man builds a home, it is his home. He knows pretty well what he wants in it and what he wants to pay, and so instructs his architect. Sometimes he gets it! When a community builds a hospital, it is a case of too many interests and too little coordination. The man in the street, who gives the money, wants protection when he is sick. The doctor wants a modern plant, which to him means good service and the equipment and technic peculiar to his own specialty. The training school wants a comfortable nurses' home and constantly expanding educational facilities. The administration wants an economical modern building in which sound business methods may replace institutional improvidence. For each department there are minimum requirements for space and equipment, but each department, professional and administrative, is prone to state its needs in maximum terms, begrudgingly accepting any compromise. Some activities have no advocates and suffer in consequence.

To plan a hospital building is the severest possible test on the ingenuity and resourcefulness of the architect. He must harmonize in its façade a number of floors heterogeneous in their requirements and arrangement. He must create, both inside and out, the new hospital atmosphere which substitutes beauty and warmth for the old ascepticism and austerity. He must work within a fixed appropriation and is usually expected to crowd in two dollars' worth of building for every dollar expended.

To achieve a hospital plan, balanced and appropriate, is a task where the experience and training of the architect must be supplemented by an intimate knowledge of what goes on inside the building in every phase of hospital work, of what is to be done, and the best manner of doing it.

Out of the kaleidoscopic ideas of the physicians, surgeons, superintendent, and department heads must be assembled an orderly mosaic, each unit fitted into a well-considered whole and all brought into line with the latest hospital theory and practice.

First determine what each and every department will have to do, its probable volume of work, its equipment and personnel, and how it should be articulated with other activities. Study traffic, the movement of food, laundry, waste, patients, nurses, doctors, and visitors from the time they enter until they leave the building. Proper routing will save endless congestion and confusion, for years to come. Study space. While rooms too large are an extravagance, rooms too small are often a calamity. The machinery of service, whether animate or mechanical, must be gauged to its load, properly designed and adequately housed so that it will operate silently, swiftly, and without friction or breakdown. Only when you know what the hospital must do —and how—can the buildings which house it be successfully planned. As the plans progress, study and study again until no further possible improvements can be found. The building will stand for generations and all waste motion and unnecessary steps that can be studied out in the plans will save a thousand-fold. The hospital is, primarily, the living organized service. The building which the architect designs to house it should typify its spirit and adequately provide for its activities.

The economies of hospital planning point to a logical procedure: First, an analysis of the hospital's work and the community's needs; second, a program which outlines what must be provided to meet these needs; and, third, a space budget which definitely lists the

[1] Read at the Hospital Clinical Congress.

MEMBERS OF THE EXECUTIVE COMMITTEE REPRESENTING THE HOSPITAL EXHIBITORS' ASSOCIATION AT THE HOSPITAL CLINICAL CONGRESS AND CONVENTION OF THE CATHOLIC HOSPITAL ASSOCIATION.

dimensions and area required for each department and unit in the building. This space budget enables the trustees to determine in advance the approximate amount of money which they must ask the community to provide. Hospitals frequently have million-dollar ambitions and needs and only half-million-dollar pocketbooks. Many plans are drawn which cannot be financed and the drastic cutting down process is never successful in end results. It is always wise to establish minimum needs, anticipate expansion and build well as far as you can go. But be sure you know your needs.

One board found it necessary to double the capacity of its hospital. It made no analysis of its past work and the plan was drawn with private, semi-private, and ward beds in the same proportion as in the old buildings. A check-up showed that while the private and semi-private beds were always crowded, the wards were running at only 45 per cent capacity, so that no new ward beds were needed.

In the past twenty years America has made enviable contributions to architecture, she has played a leading part in the rapid advance of medical science, her hospitals have gained a new beauty and a higher measure of technical perfection. In the last decade the widespread increase in the demands for hospital care, the staggering cost of the resulting expansion program, and the trebled expense of hospital service, have forced us to consider our methods and to challenge the traditions which have defined what the plant should be and how it should be run. The hospital is losing its mystery to the layman. He is recognizing an economic parallel and many points of resemblance between the management and methods of industry and those of the institution. Having to cut our building cloth to fit our community pocketbook is rationalizing our planning and compelling economy. The best examples of post-war hospitals show certain marked trends which are slowly meeting with general acceptance and materially reducing hospital costs:

1. The multi-storied, centralized structure is replacing the rambling low pavilion.

2. The compact building with lower ceilings, narrower corridors and smaller rooms is becoming general. "Just large enough" is the guiding principle.

3. Rooms with few beds are replacing large wards, substituting elasticity for restricted service and increasing the occupancy of beds.

4. Simplifications of construction and the use of standard fixtures and methods are replacing the many extravagant special hospital devices and theoretical essentials.

5. Knowledge of precise needs is supplanting guesswork as a foundation for planning.

For the care of acute cases the *centralized* hospital is almost entirely superseding the farflung pavilion type, even where the cost of the site is not a compelling factor. It is more economical to build and to operate, and saves the time of everyone concerned in the care of the patient. The modern elevator has contributed much to this change.

One of the most persistent traditions from which the hospital has had to escape is the monumental: that all rooms must be large, ceilings high, corridors wide, and everything of like proportion. We generally measure the bulk of our hospitals by their cubic contents. We rate them by their number of beds. The New York State Board of Charities used to specify a minimum provision of 1,200 cubic feet for each ward bed. They now take no exception when we provide 800 for an adult, 600 for a child, and 200 for an infant. In making an estimate of the building bulk needed to house a general hospital, and outpatient department, its nurses' home, help's quarters, power and service building, we used to follow a rule of thumb and allow from 10,000 to 12,000 cubic feet per bed. The experience with a number of compact plants has shown that 8,000 to 9,000 per bed is adequate and practicable, a reduction of from 20 per cent to 25 per cent in cubage from traditional practice.

While discussing cubage and cost, let us bury the old fallacy so frequently paraded that every cubic foot saved or added affects the cost of the building proportionately. A paper presented at a recent hospital association convention and forever incorporated in its official report, made the following statements: "Imagine a hospital 45 feet wide and 200 feet long, an area of 9,000 square feet. Now increase the height of the ceiling 1 foot. You have added 9,000 cubic feet, each of which costs 68 cents, or a total addition of $6,120, and at the same time, added forever an increased upkeep cost for cleaning, painting, and heating." The last part of the statement is entirely correct, but the first part is entirely

wrong. Just what is involved by raising that ceiling? You add one foot all the way round to the outside walls, which, assuming a 12-inch brick wall with furring and plaster, means 650 cubic feet of masonry; one foot to the inside partitions which would not exceed 800 linear feet for corridors and rooms; one foot to some 150 steam, water, and soil pipes, to elevator rails and cables; a couple of steps to your stairways. The rest which you add is air. I had a builder estimate the cost of all this. His detailed figures came to $1,730—not $6,120—and, incidentally, represent 19 cents, not 68 cents, a cubic foot.

Analysis of a hospital plan is interesting. Few realize a small part of the floor space in a hospital is devoted to the actual housing of patients. I studied a compact, 100-bed group, consisting of the hospital proper, a 50-bed nurses' home and a service building containing power plant, laundry, and housing for 36 help. The three buildings had a total bulk of 730,000 cubic feet or an average of 7,300 for each bed, and a total floor area of 62,000 square feet, of which I was surprised to find but 20 per cent was used for patients in wards, private rooms, nurseries, and solaria. These buildings are so planned that the bed capacity may be doubled with a minimum increase of administrative and professional space in the hospital building itself, yet the general departments are not excessive for the 100 beds.

The American College of Surgeons has established minimum hospital standards defining organization and facilities for diagnosis, based on "safety first" for the patient, but as yet there are no accepted minimum standards for the physical plant, based on "economy first" for the community. Every hospital, whether it has 50 or 500 beds, if it is to function at all, must have an irreducible minimum of administrative and professional space, in proportion. To this minimum, which should be the basis of every plan, much or little may be added depending on special requirements, desired refinements, and the ability to pay for them.

Economical planning is a matter of ingenuity, resourcefulness, and experience. Reducing floor area and cubage does not always insure a real saving. A semi-private wing designed to economize cost was drawn 34 feet wide and 135 feet long. The rooms were 12 feet deep with the head of the bed to the outside wall. There were 26 beds on the floor, an average of 176 square feet per bed. The plan lacked the needed bed capacity. By adding 6 feet to the width, making the rooms 15 feet deep and putting the beds against the cross partitions, 10 beds were gained on each floor. For 36 beds the average floor space was 150 square feet. The increase represented 8,100 cubic feet and cost about $9,000 for each floor, but the 10 beds added were worth $5,500 each, based on an average cost per bed, or a net gain of $44,000.

Increased *flexibility* represents one of the most significant advances in the economics of planning. While the country needs many more beds, it needs equally to make more use of those it has. The official figures for 1925 show an average utilization of only 67 per cent

MAIN ARENA OF THE MILWAUKEE AUDITORIUM, SHOWING SOME OF THE EXHIBITS OF THE HOSPITAL CLINICAL CONGRESS. SOME OF THE CLINICS WERE HELD AT THE BOOTHS ON THE EDGE OF THE ARENA, THE LISTENERS SITTING IN THE CHAIRS ABOVE. THE SURGICAL CLINIC WAS HELD ON THE STAGE, WHERE THERE WERE ALSO EXHIBITS. OTHER EXHIBITS AND CLINICS WERE IN VARIOUS SMALLER HALLS OF THE AUDITORIUM.

of our 700,000 hospital beds. A total of 200,000 standing empty would seem an excessive reserve. It certainly represents a staggering waste—nonproductive capital which industry would find means of putting to work. Hospitals have their peak loads and slack seasons. Some beds in reserve for emergencies are essential, but hardly 33 per cent. More patients can always be accommodated in solaria, doubling up in private rooms, using visitors' rooms, dayrooms, etc., to meet unusual pressure.

What proportion of vacant beds is due to lack of elasticity in the hospital's plan and inflexibility of its rules as to segregation of services, is difficult to determine. Large wards restricted variously to male, female, medical, surgical, maternity, and in the south, a further division for colored patients, invariably result in numerous empty beds. The value of flexibility is demonstrated in the newer-type hospital where small groupings which better lend themselves to the varying demands result in 85 per cent to 90 per cent utilization. In a community hospital the difference between operating at 67 per cent and 85 per cent of capacity represents the difference between a large or small deficit. The small ward lends itself to changing economic conditions. The hospital board which has the vision to adapt its plant and frame its policies to meet the new medical and social needs of the patients in its district finds a surprising gain in business and a consequent decrease in deficit, when it increases the number of semiprivate beds and extends the privilege of their use to its courtesy staff. With the soundness and economies of the small, flexible unit so often demonstrated it is hard to understand the planning today of new community hospitals with the obsolete 24-bed ward.

Simplification by following standard building methods and using standard articles where they will serve, instead of demanding something special, and a little different, offers one of the greatest opportunities for cutting costs. It rarely involves any sacrifice of utility or service but merely saves expense which does nobody any good. Hospitals are clothed with traditions and obsessions, which tax them heavily. Luther Burbank says in his autobiography: "I would swap a whole cartload of precedents any time for one brand-new idea. The history of the world is the history of revolts and rebellions, and the consignment of precedents to the everlasting junk pile." Hospitals are slow to revolt. Their junk piles are rather mausoleums where precedents are enshrined.

Some items caught in the plans and specifications of a new 250-bed institution will illustrate. There was specified under plastering "All exterior and interior angles to be formed on a 2-inch radius." This means that instead of the corners of the walls being finished to a small metal corner bead as usual, they were to be rounded to about the curve of a teacup. The extra cost would have been some $3,600. Flush steel doors were called for. A flush wood door is a standard type, long used in hospitals. A flush steel door is hard to make and costs about $10 more than if built with a single panel so slightly indented as to create no cleaning problem. There were 750 doors needed. Substituting the equally appropriate and even better looking single panel design saved $7,500. Here were two items in the specifications where the tax of tradition was over $11,000, yet nothing was lost in the saving of it. In the same plan the staff wanted the private rooms on the top floor and the operating and delivery suites on the floor below. The many pipe and flue connections incidental to sterilizers, special heating, ventilating, etc., could be handled so much more simply where attic space immediately above was available that the engineer found he could save $15,000 by reversing the floors.

Many examples could be cited of the high cost of translating the desire for individuality into specially made equipment. The average layman has no conception of what it costs a factory to produce something special, even if only a trifle different from the stock article. At a recent meeting of representatives of four national plumbing manufacturers' associations, called to consider ways and means to simplify hospital plumbing, many illuminating statements were made as to the extravagant prices which they had to charge, and why, for hospital fixtures. The special designs cost the manufacturers more than they dare exact, and the hospitals far more than they are worth. Every time a large porcelain slab or sink is ordered at least three have to be put through the moulds to insure one perfect one.

Surgeons are individualists. Each has some particular theory on scrubbing up. There is probably no one item in the hospital which involves proportionately so much waste money as the special scrub-up sinks. The ordinary roll-rim kitchen sink, or if something deeper is required, a laundry tub, is entirely appropriate —if rechristened—and can be had for a fraction of the cost of the special fixture. Incidentally, at the Mayo Hospitals the masters scrub up over the humble laundry tub.

Some hospitals are following hotel standards and providing a toilet for every room. I made a study of the value of the toilet to the patient himself, as apart from its far from satisfactory use for emptying and washing bedpans. On a given day 12 hospitals reported an aggregate census of 1,125 patients, of which 145, or about 12 per cent, actually got out of bed and used the toilet in a 24-hour period. Even where the individual toilet is not provided, it is customary to install about 6 toilets on a patients' floor of 30 beds. Under normal conditions there would be about 24 patients. On such a floor if 12 per cent or 3 of these were able to move about, each would have a choice of two toilets. Each toilet unit, including fixture, marble stall, doors, and building space, represents the investment of over $400.

Someone once persuaded a hardware manufacturer to design a dustproof strike, a brass trapdoor to cover the little holes in the trim into which the latch and lock bolt fit. This frightful menace to cleanliness consists of about one cubic inch of recess at each door and must

be guarded. The resulting "gadget" of brass plate and fragile springs would cost a 100-bed hospital over $400 to say nothing of upkeep, and is about as valuable as a safe deposit vault to store paper napkins in.

These are but a few of many examples that could be cited. Plans and specifications should be microscopically scrutinized by an understanding eye and many assumed essentials checked and challenged. It always pays.

Ruskin says: "Economy no more means saving money than it means spending money." In hospital planning false economy is as prevalent as extravagance. A 250-bed hospital plan showed but two sinks in which to empty bedpans on a floor of 75 beds. An analysis of operation indicated that the nurses would have to walk 34 miles a day to handle bedpans alone. By spending an additional $10,000 for a proper number of bedpan washers conveniently located, this travel was cut to twelve miles. Another hospital illustrates the importance of good plumbing engineering. The superintendent spent $5,400 in nine months in cutting, patching, and cleaning out traps and soil lines. This was because of an insufficient number of housemaid's sinks, so that mop pails were emptied into the nearest lavatory, and to many long horizontal runs of pipe which made stoppage easy.

Every completed plan and specification necessarily represents innumerable compromises. Sound judgment is vital to determine which of many alternatives will be best in the long run, when to spend and when to save. Cheap pipe which saves $1,000 in the building contract but involves a replacement cost of $2,000 after five years, is no economy. A lady was being shown a new automobile. The salesman assured her as a selling point that if she bought the car they would put her initials on the door for nothing. She said: "My husband tells me that it is not the initial expense but the upkeep that counts."

Opinion and technic vary; there are many approved methods of doing the same job. Each hospital plan should incorporate local practice if it is sound. To illustrate, I recently visited a beautiful new maternity hospital which had been open less than a year. Five magnificent porcelain babies' baths, each six feet long, had been taken down and stored in the basement. These represented an investment of over $4,000. The nurseries were too small, the slabs too large, and the technic of this hospital called for using individual basins and bathing babies on the nurse's lap.

It is difficult to characterize hospital planning which puts raised saddles across a main corridor, over which stretchers, beds, wheel chairs, and trucks must bump many times a day; which uses speaking tubes with shrill whistles, disturbing every patient on the floor; which hampers a solarium's use by making it a step lower than the ward floor; which has lavatory faucets too low for filling basins and pitchers; which makes patients' doors too narrow to readily pass a bed; which omits automatic door closers on button controlled elevators, necessitating the climbing of many flights of stairs to shut the door carelessly left ajar and start the car; which fails to study, determine, and provide in the plan proper control of ingress and egress, and the routing of visitors, staff, and employees, to insure convenience of movement everywhere, but no lost motion; and which neglects to supply waiting rooms for anxious friends, ample storage space for all kinds of supplies, closets for stretchers, dressing carriages, and wheel chairs, fails to adopt known precautions to insure quiet and control odors. Yet such errors and omissions are found time and again in the new hospitals which we are building. They are just as annoying, just as costly, today as they were twenty years ago.

Hospitals compete for business whether they realize it or not. Patients used to go where the doctor sent them. Now many are choosing the hospital where they hear that the food is good, the rooms bright and comfortable, the service cheerful and attentive. These are important features to which sound planning may contribute much.

The high cost of hospitals is due to many things; important among which are failure to determine precise needs, lack of architectural experience in providing for them, lack of sound judgment, lack of definite centralized responsibility. The lay board looks to the doctors, superintendent, and nurses to define the requirements. They leave it to the architect to plan what he thinks they want. But there are always many gaps and the trustees have no way of checking the soundness of it all.

It is difficult for the average layman or physician to visualize from a blue print whether a room is of proper size, the windows, lights, radiators, plumbing, and other equipment and furniture, properly arranged for its proposed activities. It is equally difficult for an architect to be familiar with the details of hospital operation, nursing routine, and emergencies, the dietary problem, the receipt, control, preparation, and distribution of food to some eleven-odd different groups of eaters, who must be variously served, some twice, some three times, and some six times a day. Yet every step and every motion counts and costs. The physical plant will automatically simplify or complicate every one of the multitudinous tasks of the hospital day, depending on the intelligence, experience, and judgment which guided its planning.

To summarize: First determine and analyze what are the community needs and what the hospital must provide to meet them, with due provision for future expansion. Then forecast the hospital organization and operation in detail, the particular requirements of each department as to space, equipment, and relative location; do not let one department be overemphasized at the expense of others equally important but less vociferously advocated. Study the route of traffic in and out, up and down, and its proper control; determine technics and procedures which are to be followed. Define the responsibility. The ideas of the lay trustees, architect,

staff, and superintendent must all be coordinated, to achieve a balanced flexible building. The problem is comparable to that of a group of specialists diagnosing an obscure malady. Unless their findings and recommendations are harmonized by the internist, the patient may die before the diagnosis is reached.

Keeping Religion in the Catholic Hospital[1]

Rev. John P. Boland

HISTORICALLY, the religious aspect of hospitals is their chief one. The earliest hospitals of Italy, France, and England, were primarily religious institutions. The French still name their hospitals Hotels Dieu. The great Ospedale dello Spirito Santo in Rome was dedicated to the Holy Ghost, because the sufferings of the inmates were looked upon as means of personal sanctification. All through the fabric of Christian institutions for the cure of disease is to be found the thread of Christ's pity for the blind, the deaf, and the halt. This historical relationship between the Church and medicine cannot be better illustrated than by the interpretation sometimes given to the ℞ of the physician's prescription. The line written across the tail of the letter would indicate the beginning of a cross; "Recipe in cruce," "Receive in the name of Him who suffered on the cross." And this brings to mind the fact that the coat of arms of the great hospital order of the Daughters of Charity bears these words, written oval-wise around the Crucifix, "The charity of Jesus *Crucified* urges us." Our Catholic hospitals, therefore, have ever stressed the spiritual care that must go hand in hand with the physical treatment given their patients.

That this predominance of the spirit over the material actuates our Catholic hospital service today is a matter of daily record. We find it existent in every one of the four component divisions of our institutions, the religious order conducting and supervising, the physician healing, the nurses ministering, and the patients ministered to.

The spirit of the hospital Sisterhoods is the true spirit of an all-embracing charity. Their guide posts are the Decalogue, the evangelical precepts, their constitution, and their rules. Approved as pontifical institutes or diocesan congregations for the work they are doing, their chief hope for success lies in their fidelity to their twofold charge—personal salvation and the constructive alleviation of human ills, mental and physical. Juridically, their status is explained in Canons 1489 to 1492 of the Code of Canon Law, which bring out their dependence upon the Ordinary in all things that pertain to faith and morals, pious devotions, and the administration of the sacraments, and this whether they be papal or diocesan communities. The center of our Sisters' hospitals, whether architecturally or just figuratively, is the room assigned to Our Eucharistic Lord, the chapel. Here all corridors must converge, here is comfort for the sorrowful and the mourning, strength for the weary and the discouraged, light for the perplexed and the puzzled. "Mehr licht" exclaimed Goethe in his dying hour. More light! That is what the chapel sheds over the entire personnel of our Sisters' institutions, and, mark you, to him who has a larger capacity, more is given. There can be no other satisfactory explanation of the tireless, patient, whole-souled, sunny service of the Nuns. Theirs is, indeed, the noblest profession of mercy. Whatever savors of the market place has been carefully lifted from our concept of their ministrations. There is no salary list for Sisters. Daily Mass, Holy Communion, meditation and prayers, frequent Benediction, and annual retreats are easily seen to be essential in such lives of self-sacrifice, and only emergency cases can be permitted to interfere. Mercy is emblazoned on the banner under which they wage war on disease, and their watchword is progress. The results of their experience, their findings, their discoveries are a part of humanity's strivings upward. It would be a pity, if they were not put into permanent form for the guidance of their successors.

Ill will fare that hospital whose staff has become so engrossed, through long immersion, in the physical side of the bodies treated that it cannot see the souls. The era of materialism in the medical sciences has lasted long after its repudiation by the other pragmatic studies. And frequently, in the debris of this backwash, we recognize our own. And yet, it seems bromidic to state that the human composite possesses a soul as well as a body. A diagnosis that fails to find room for disease causes in the soul is obviously incomplete. It is merely negative to take the stand of noninterference. The doctor's position makes it possible to give positive help in strengthening already existing religious emotions. It is not enough to prevent a Catholic baby from dying unbaptized, or a Catholic possessing the use of reason from dying without the last sacraments, it is not enough to abstain from abortion and all abortive measures, operative, or applicative, from foetal murder in all its forms, from the abuse of drugs. There should be whole-hearted cooperation between the physician and the priest. They meet at the same bedside, they minister to the same patient, they realize that the interests of body and soul can be better secured by mutual understanding than by disjointed treatment. The sweet influence of religion has ever been the means of dispelling that nervous gloom of the patient, so dangerous to his physical recovery and well-being.

For the nurse, the third member of the ministering trio, faithful application of her religious principles will be beneficial to herself, and in a decidedly important way, to her patient. Her training will be rather one-sided if she is not fully aware, on graduation day, that disease and pain have a very clear purpose in the divine economy. Her knowledge of the fact that Providence may choose any human being for a career of suffering, be that human being rich or poor, delinquent or innocent, will enable her to calm the ruffled moods of those

[1]Read at the sixth annual conference of the Catholic Hospital Association of Pennsylvania, Scranton, Pa., April 19-20, 1927

PENNSYLVANIA CONFERENCE OF THE CATHOLIC HOSPITAL ASSOCIATION, SCRANTON, PA., APRIL 19-20, 1927.

whom "the hand of God hath touched." Her devotions and her religious studies must be guided with at least the same care that is given to her secular studies. Admitting that the school of nursing is not a convent novitiate, we may well be permitted to hold that the students of the former need the same religious preparation that is given to the chosen ones of the latter, for the scope is the same—personal sanctity and altruistic endeavor. The salvation or the loss of a soul are sometimes dependent upon the action of the nurse. For that day and that hour she must be prepared, and the preparation is wholly religious.

Hospitals were built for the relief of the disease-afflicted. The patient is the unit that brings all the healing forces of society to a common fighting ground. He occupies the center of the stage. All the building, and all the planning, all the studying and all the experimenting have for their one purpose the return to normal condition of a human body united to a human soul. Catholic hospitals are guided in this saving work by the Church's beautiful symbolism. Good and bad and indifferent are the patients they harbor. And for each one of them there is a distinct appeal. The Church has taken the blue out of the sky and the gold from the sunset to tint the holy places of her hospitals and the vestments used therein. The very walls are eloquent with the story of Christ's sufferings, of His love for the body-weary, and of the great reward of the saints for crosses carried patiently. The quiet zeal of consecrated women, the mystery of their great calm, the music of the beads that hang from their girdles speak like thunder to the souls of men and women who have come face to face with purifying sorrow.

It has been said that the Catholic population of the United States today should be 40,000,000 instead of 20,000,000. Many causes have contributed to this state of affairs, the lack of priests in small country towns, the bitterness of persecution in neighborhood, school, and society life, the bad example of some Catholics, these are a few of the causes. Who among you is unaware of the fact, that the great leakage is being halted somewhat through the work of our Sisters' hospitals? It is within the experience of every priest and hospital Sister, that thousands are brought back to a Catholic mode of living, and hundreds freely adopt it, as a result of their hospital observations. If for no other reason than for this, may our institutions be said to be doing a noble work for humanity.

Mindful, as they have been in the past, of their two-fold duty, to heal the bodies and to keep the souls of men, our Catholic hospital leaders may well be continued in their sacred office of bearing aloft the flaming torches of science and religion, not unlike her of whom Longfellow wrote:

A Lady with a Lamp shall stand
In the great history of the land
A noble type of good
Heroic womanhood.

NATIONAL HOSPITAL DAY AT MERCY HOSPITAL, IOWA CITY, IA., 1927.

Clinical Demonstration in the Teaching of Nursing

Sister M. Theresé, R.N., Instructress of Nurses, Mercy Hospital, Chicago

AMERICAN generosity likes to do things, not to talk about service to humanity. Much in the same manner, nurses devote their lives to their noble, humanitarian profession. This is one of the reasons that impels us to put into the nurse's education, only that which tends to its perfection. The teaching of nursing, at the present time, is, as we all realize, very different from what it was even ten years ago. Fitting the nurse of today, to meet the ever changing problems of tomorrow, means, more than ever, molding her ability so that she may face and solve nobly whatever the future may hold.

In the distant past, this knowledge has been supplied too much by theoretical courses; courses which have pushed aside the more simple and accessible method of clinical demonstration. Theoretical courses are, of course, a vital preparation for clinical work; they supply facts and inculcate the underlying principles which must be the motive of a nurse's action. In order to render these effective and concrete there must be a definite and correlated method of study. Today's short hours, high standards, and desire for specialization, make the need for intensive and scientific study more evident than ever.

Clinical demonstration, in order to be effective, requires very careful preparation. Every detail entering into the demonstration should be thoroughly planned and carefully analyzed. The class arrangement, the atmosphere created, the presentation and development of the lesson, all should be such as to stimulate interest, attention, and thoroughness. Unless manual skill is displayed in an educational environment, and is the outgrowth of the principles taught in the classroom, the work will be dry and uninteresting. The making of a bed is in itself just "work" and work to most of us is distasteful, but if we introduce this bed-making by a few well-chosen words, emphasizing the hardship it is for a person physically ill to have to lie in the narrow space of a bed for twenty-four hours of the day, and the torture that a wrinkle in the sheet may cause to an already sensitive skin, we will have aroused a mental picture that will stimulate the nurse to put forth her best efforts.

It is easy to see that for clinical demonstration, small informal groups should be chosen and free exchange of ideas encouraged. The material used should accord with previous knowledge and ought to be so arranged as to form a sequence based on ideas already received. Since first presentations control the assimilation of subsequent ideas, the new subject matter should be so presented as to form the central idea, interlacing it with the old, and projecting it into the new. For instance, a few weeks ago, in one of our classes, the topic of discussion was, "Methods of Restraint." As there was, at that time, in our pediatric department, a child on a Bradford frame, we called the attention of the students to it and had them see the case. One student wrote a paper on the use of a Bradford frame and read it to the class at the next session. She emphasized especially its advantages in cases similar to the one she had seen, where the child was suffering from a congenital tubercular spine.

All demonstrations should be preceded by a discussion. The student should be familiar with the purpose of the treatment to be given, its effects, and the method of preparation and administration. This awakens keen interest and arouses a necessary curiosity. The practice hour should, moreover, immediately follow the demonstration in order to strengthen the impression. Too much time should not be spent in the demonstration room; the presentation of the actual case is much more impressive. The nurse who has seen a case of poisoning by carbolic acid will remember it long after it has been forgotten by the nurse who only heard it talked about. Seeing the patient, pointing out the symptoms taught, examining the chart and laboratory findings, fixes the picture in the student's mind.

In clinical work, careful supervision is absolutely essential, otherwise wrong habits may be acquired and the work of the classroom entirely undone. Following clinical demonstration, it is beneficial to have the student write out her observations and difficulties. This gives the teacher a very clear idea of any point she may have failed to stress, and of any wrong impression received by the student.

A finished demonstration should be a work of art, sufficient to arouse the student to admiration, and to arouse in her a desire to perform it in a similar manner. Much stress should be laid on the responsibility of a student. When a task is assigned to her, no matter how elementary it may be, she must be made to feel that she, and she only, is responsible for its perfect performance. Not that mistakes will not occur, but these mistakes, while not desirable, are, in themselves, an important part of teaching. They give the student a chance to show her initiative or her lack of it, and her ability to adapt herself to unusual circumstances. They also stimulate a creative and constructive attitude, and display the student's accuracy of observation. There is danger in clinical demonstration of presenting a situation that is too ideal, of selecting material and appliances that forbid a mistake, forgetting that it is only in a few situations in life that we meet with the ideal. The equipment used should, as far as possible, be the same as is used generally in the hospital, and this should be as simple as possible. Simplicity in work and equipment makes for accuracy and thoroughness.

To promote efficiency and uniformity a standard method of treatments should exist in every hospital. A

mimeographed copy of these regulations should be kept in each department, so that a nurse in her rotation of service will not have to learn a dozen different ways of accomplishing a single nursing procedure. In fact it would be a distinct advantage if the Catholic Hospital Association would select a group to establish a standard method for simple nursing procedures in all of our hospitals. It would mean the saving of much time to nurses, the elimination of much embarrassment, and oftentimes the removal of discouragement to the young student nurse. It would mean especially better care for the patient and a definite mode of procedure in our nursing schools. In the near future when our schools are graded we will have to do it. Why wait till we are compelled to do it? Should we not lead instead of follow?

Grading Schools of Nursing[1]

Dr. Edward A. Fitzpatrick, Dean, Graduate School, Marquette University

THE Committee on Grading Schools of Nursing is, contrary to the narrow limitation suggested by its name, a serious, comprehensive effort to study the entire nursing problem. The committee was forced to a consideration of the larger question by virtue of the fact that any intelligent and permanent effort to deal with the narrower problem, the grading of schools, had to be built on the wider basis. It is of the utmost importance to you whether as superintendent of a school, as superintendent of nursing, as nursing instructor, or as a nurse interested in your profession, that you should know definitely what is being done, and understand clearly what is the significance of the various steps. The best time to influence the committee's work is in the process of study. Now is the acceptable time. For the committee is building up progressively as part of its program a public opinion, both inside and outside the nursing and related professions, that will have gathered momentum hard to overcome once it is organized.

Some Possible Dangers

Right here, for example, I may indicate a danger. The interpretations that are put on statistics are various. Statistics settle nothing, but what people think they mean is everything. This study will furnish an extensive basis of statistical fact for its conclusions. At every point it will be necessary to watch these interpretations, this emphasis, that conclusion.

There is a possible danger that the committee may prejudice the case before the data are collected. Take, for example, the speech of the director of the committee, the American Hospital Association published in the *American Journal of Nursing* in December, 1926. How many read that speech? Did you acquiesce in everything in it, or did you object to anything, and if so, did you write your objection to the committee?

A Program Based on Facts, Not Speculations, Guesses, Nor Probabilities

There is a noteworthy paragraph in that report regarding the small schools of nursing. It begins, "This diagram leads to some interesting speculation." Whatever you may think of the speculation, this committee should have nothing to do with speculation. The only justification for the existence of the committee is that it will furnish a comprehensive basis of fact for conclusions. I dare say many workers in the field could now anticipate most of the conclusions of the committee as personal opinions or impressions on a narrow basis of fact. But it is this very basis that the committee is trying to get away from.

In another place a discussion of the professional preparation and "turn over" of superintendents of schools of nursing is prefaced with this sentence: "While we have no accurate figures, it seems probable." Whatever the probabilities it alleges are, the representatives of the committee should wait until they have accurate figures before indulging in probabilities.

The Need for a Critical Constructive Program

These points are raised here to stimulate on your part a critical attitude toward the report of the committee, and to point the danger in all investigations, namely, as the French say, that we shall find what we look for. The existence of an alert, critical group in the nursing profession itself would contribute greatly to the value of the report. Nothing else would contribute quite so much. The director and the members of the committee are not looking for praise or adulation for their work, but they are seeking to render a service. And while the committee needs money to carry on its work, it needs more a critical, constructive attitude on your part.

The Constitution of the Grading Committee

Perhaps in order to be able to make this contribution of constructive criticism, there is a fundamental informational basis regarding the committee and its program which you should now have.

The original committee consisted of two representatives each from three of the national nursing associations, the National League of Nursing Education, the American Nurses' Association, and the National Organization for Public Health Nursing; a representative with an alternate from the American Medical Association, the American College of Surgeons, the American Hospital Association, the American Public Health Association; three educators, one each from the far west, middle west, and east, and a representative of the public are also included. Since the committee started functioning, another educator has been added who was interested in the job analysis in the study of medical education, and a representative general medical practitioner. If you have read the editorials in HOSPITAL PROGRESS, you have seen the desirability for some real

[1] Read at the 4th Annual Convention of the International Catholic Guild of Nurses held during the Hospital Clinical Congress, Milwaukee, Wis., June 20-24, 1927.

representative of the Catholic hospital and nursing groups, not because they are Catholic, but because theirs is a special problem.

The Program of Study

The committee fortunately gave considerable time to its program, and, as a result, the program which the committee has announced is well considered, comprehensive, progressive, and probably will be fruitful. This program covers a period of five years and is estimated to cost $200,000—about $40,000 a year. There are three major problems to be carried along simultaneously, but receiving, in different years, different emphasis.

Supply and Demand

The first project is a study of the supply and demand of nursing service. This will include a study of the quantity, quality, and cost of private-duty nursing, hourly nursing, public-health nursing, and institutional nursing, with information from doctors, nurses, patients, directors of visiting nurses' associations, superintendents of nurses, and directors of registries. This first project on supply and demand of nursing service will receive major emphasis in the first two years, with the study published in the Fall of 1928, and the three remaining years will be given over to follow-up of the study.

Job Analysis of Nursing Service and Teaching Nursing

The second project is a job analysis of the nursing services. What is good nursing service? What is the quality in nurses that will produce this service both in range and quality, and what is the job of teaching to help produce that kind of nursing service? These analyses will be carried along in a preliminary way during the first two years, along with the study of supply and demand, but will receive major emphasis in the third and fourth years, culminating in a printed monograph in the Fall of 1930.

Grading Schools

The third study, and the one for which the other two are preparatory, is the grading of schools of nursing. This study would be carried on during the five years. The process of grading will begin with the very first year, and in the Fall of 1927 the comparative standings of all schools on some simple standards, easy of attainment and few in number. It is, I believe, the committee's present intention to publish these rankings by states instead of by individual schools. Rankings will be published each year and the process of grading will be studied in the actual process of grading. The standards will presumably be developed and the work will be cumulative. The progress a school makes to test the educational effects of the grading will be a primary concern. In the fifth year this study is the major interest, and the comprehensive report of the committee on all three aspects of the problem, especially with reference to grading, will be made.

Probable Results of Program

From such a program there may be reasonably expected:

1. A comprehensive basis of fact regarding the supply and demand of the various kinds of nursing services.

2. Implicit in this study will be the discovery of the basic conditions that will prevent a positive danger of raising educational standards unnecessarily or too fast, so as to interfere with the available supply nationally, regionally, and even in individual states.

3. An analysis of the actual requirements for the various kinds of nursing service—private duty, institutional, public health.

4. A clarification of the aims, methods, organization, and curriculum of schools of nursing.

5. A translation of the results of the job analyses into a curriculum for each of the nursing services, indicating the essentials of knowledge, appreciation, attitudes, and skills.

6. A five-year study of methods of gradings, based on actual grading.

7. A grading of schools of nursing.

Danger of Premature Legislation

As the findings of the committee are published, there will be danger of premature legislation—the effort to solidify in legislation standards that should not be legislative at all, but administrative. The committee, of course, cannot be responsible for such action, but it is a peculiar danger in a country that complains much of legislation but is always running to the legislature to settle specific problems or provide new panaceas. If a word may be permitted here, it seems that state supervision of nursing schools has been, at least in some states, not always intelligent or marked by good sense. Perhaps state boards felt that the status of the nursing schools warranted minute interfering, detailed prescriptions—and what looks at times like actual administration from the state capital. The same kind of prescription for medical schools, for example, would not be indulged in. It isn't. At any rate, I put this note in, in the hope that any state supervision or grading will ultimately recognize the autonomy of schools, or will deal with general standards instead of minute prescriptions.

Who Shall Do the Grading in 1932?

There will still remain an important problem after these things are accomplished, and assuming they are done satisfactorily to the field, who will continue the process of grading? Though that problem is five years off, you should not fail to have it in mind now and to watch how things develop. Obviously, the present committee could not continue. The nurses may want to control their own professional training as other professions do. But which association shall it be and shall it be distinctive for different groups, or must a cooperative committee be given control? Will the medical profession be satisfied to permit this for what is undoubtedly, for the most part, an auxiliary service to the medical profession? What will be the hospital attitude on this question? And does not the surgeon's interest center in the hospital also? Or will a cooperative committee, composed in part as the grading committee is, be the best agency for the grading?

The High Responsibility of Constructive Criticism

I have attempted to place the general situation before you. I have attempted to look at the problem quite dispassionately. I have attempted to indicate to you that the committee does not look upon its work as final or beyond criticism, but welcomes cooperation in every form from individuals or groups. I have attempted to put on you the high responsibility of constructive criticism. I have attempted to indicate some things to which you might direct your attention. I have attempted to open a field for discussion for you now.

Physical Education in Nursing Schools[1]

Marie L. Carns[1]

It would seem that there are two very distinct reasons why supervised physical activity should be a part of the course for nurses. First, because of the direct benefit of such training to the nurse herself, and, second, because she might conceivably be able to make use of her knowledge of physical exercise for the benefit of her patients.

That group games are desirable for the healthy young adult certainly does not need proof. The work of the nurse in training is confining indoor work, and outdoor recreation is more of a necessity and would doubtless be more of a joy to her than to others whose work takes them more into the open. It might be said as a contradictory point that the student nurse is upon her feet so much that she would find physical exercise a fatiguing rather than an invigorating, restful and enjoyable diversion. This is very doubtful.

Although she is on her feet a great deal, she always has her adequate eight hours of sleep, and with this, the average healthy girl should still have sufficient energy to enjoy and benefit from a short period of daily activity. Whether participation in such physical activities should be required (of all who are in satisfactory physical condition) or should be offered for those who care to volunteer, is debatable. There are many arguments pro and con, which can be only touched upon here.

An argument for requiring such a course is that those who might benefit most by properly arranged and supervised physical activity, and who might perhaps learn to care for it, are just the ones who may not instinctively like it and elect it. On the other hand, it is always a thankless task to have individuals in any class who are there because they *must* be and not because they *wish* to be, and this situation detracts very much from the play spirit which is so invaluable in such work. The ideal situation is one in which the work is made so attractive, interesting, and varied that each girl can find at least one physical activity which really appeals. Time, space, equipment, and the personality of the teacher, unfortunately, do not always make such a situation possible, and in different schools the problem would have to be worked out differently.

Some such scheme as the following, adapted, of course, to suit individual problems, would seem to be the minimum desirable. First, a trained teacher of physical education should be secured, to teach at least three days a week for a one-hour period. Such an arrangement might conceivably be made through the city Y. W. C. A. or the public or normal schools, for a teacher for these three hours. In most nursing schools the girls have two or three free hours daily, and perhaps special arrangements might be made on the various services to give the free hours at the time agreed upon for physical activities.

In the next place, a variety of outdoor games should be arranged. This would, of course, vary according to playing space, equipment, etc. Games like volley ball, baseball (indoor rules played outside), or soccer accommodate large numbers with very little equipment. Permanent teams which could compete throughout the year for an all-round championship would add zest and the fun of group competition. In winter, hiking, skating, and skiing might be used. In the spring there might be facilities for a tennis tournament, outdoor basketball, etc. In rainy and disagreeable weather indoor classes in which posture training and especially foot exercises, with some explanation of the mechanism of both, would be very valuable, for poor posture and foot strain may be tremendous fatigue factors in a nurse's life.

The second reason for physical education in a nurse's training course is that through an understanding of the possibilities and values of physical activity which may be gained best by personal experience, she may be better able to understand and help her patients. Experimental work which is being carried out at the present time seems to indicate a value in certain carefully graded and supervised exercises in convalescence, and the nurse is the one who will be called upon to give these exercises.

If she enjoys physical activity herself, and really believes in its value, she will be much more successful with her patient than if she gives it merely as a "part of the day's work." Also certain exercises given to strengthen the arch of the foot, to lessen the possibility of fallen arches after convalescence, and deep breathing exercises to lessen the possibility of hypostatic broncho-pneumonia, for example, may all be better given by her if she understands their purpose and believes in their value.

The two-fold value of physical education for the nurse in training, then, creates rather a unique situation and certainly seems to merit the consideration of an arrangement for its inclusion in any well-rounded nursing course.

[1]Miss Carns is a senior student in medicine at the University of Wisconsin, and was formerly assistant professor of physical education at the University of Wisconsin.

PUBLIC HEALTH REPORT

The Surgeon General of the United States has addressed to the editor a letter requesting suggestions as to the character of material which would be of most value to the readers of the United States Weekly Public Health Report. The letter reads as follows:

"We are very desirous of making the weekly Public Health Reports of the greatest possible value and assistance to Public Health officials and others to whom they are distributed. In the accomplishment of this your full and frank comment and criticism are earnestly solicited.

"It is requested that you submit any suggestions that you may have as to the character of material that you would find of most value, and also as to any material now being included in the Reports which you believe might be omitted without detriment."

We shall be glad to receive from any of our readers any suggestions they have to offer, which we shall be pleased to transmit to the Surgeon General.—*E. F. G.*

Hospital Progress

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STATEMENT BY THE REV. C. B. MOULINIER, PRESIDENT OF THE CATHOLIC HOSPITAL ASSN. OF THE U. S. AND CANADA

The Clinical Congress was a Success

Without qualification persons interested in hospitalization who attended the sessions of the Hospital Clinical Congress of North America expressed enthusiastic appreciation of the Congress, and the methods of presentation.

I am certain the exposition will establish new standards for hospital gatherings. The clinical method brought out the most, from an educational point of view, that could be expected. It demonstrated the most modern equipment, the latest procedure in hospitalization and hospital management; and it permitted those attending to center their time on the departments in which they were most interested.

It was a tribute to the plans and service of the Catholic Hospital Association of the United States and Canada, and to the efforts of Marquette University, through the College of Hospital Administration, in putting hospital management on a higher plane—in increasing the efficiency of the hospital both in its service to the public, and in the management of the institutions.

STANDARDS IN NURSING PROCEDURE

The suggestion made in the paper of Sister Mary Theresé on "Clinical Demonstrations and Teaching of Nursing," that a standard method of treatments and of simple nursing procedure should be established and adopted through the work of a committee of the Catholic Hospital Association is no doubt a very good one. There are a number of other outstanding needs for uniformity of procedure in our hospitals. Thus, for example, the curricula of the schools of nursing, and especially their choice of textbooks, presents, at the present time, a diversity so great as to be almost chaotic. This was abundantly shown by the reports of the committees of the Catholic Hospital Association given at past conventions. But in order to meet these needs and to do really active work, it is necessary to find Sisters among the membership of the Catholic Hospital Association who are both qualified for such tasks and willing and able to give time and energy to accomplish them.

The great problem which impeded and delayed the work of the committees in the past was the difficulty in finding Sisters who could and would act as chairmen and as active members of the committees. We make this remark, not by way of criticism, but merely as the statement of a plain fact. There are only two ways to achieve any results. One is by a miracle, and the other is by securing a cause which is proportionate to produce the effect. Miracles are very rare and not to be expected, certainly, in a case like this. Hence, the only way to secure the results so much to be desired is to find competent and willing chairmen and members of committees. That we have many Sisters who are thoroughly competent for this work, no one who attends the conventions and reads the papers in HOSPITAL PROGRESS can doubt. The Sisters, however, are very often so overworked already that they hesitate to undertake the responsibilities in question.

The only way out of this difficulty is to have all realize the importance of the work to such a point that they will be willing to sacrifice the time and energy required. Until that day comes, it is interesting, but futile, to make suggestions when there is no one to carry them out. We call for volunteers to do this important and fundamental service to our Catholic hospitals. Who will be the first to respond?—*E. F. G.*

A GOOD EXAMPLE

In the interesting summary of the report of the St. Mary's Hospital, Duluth, Minnesota, for 1926, we read with great interest and pleasure the following words: "A Sister gives her whole time to the matter of bringing to the patients suitable reading. She makes her daily round with the library truck, leaving for those able to read, pabulum for their mind." Such a practice in a hospital marks that hospital as thus far a really progressive, wideawake, and worth-while institution. We suppose, of course, that all the other needs of the patients are well taken care of and that everything possible is done to provide for their bodily needs. But when a hospital is enlightened and wise enough to assign one of the Sisters to the special task of supervising the patient's reading, of acting, so to speak, as a dietitian for the mind, then that hospital singles itself out as a worth-while institution.

As a matter of fact, it seems that every wideawake, intelligent, forward-stepping superintendent of a hospital ought to see this at the first glance. All we learn about the influence of the mind on the body makes it more and more clear that even from the standpoint of physical wellbeing, the hospital owes a duty to its patients to give them proper mental nourishment and to keep away harmful, injurious reading. But the hospital has charge of more than the mere bodily welfare of the patient. The whole, living man or woman is in the care of the hospital and it is a sorry commentary on the intelligence of the hospital superintendent to be satisfied with trying to take poisons out of the physical system while at the same time allowing mental poison to seep into the mind and the soul, or failing to do anything effective to feed and heal the mind while the patient is in the hospital.

We look forward, therefore, to the day when every hospital of any sort which wishes to be called a good hospital, will have a definite official assigned to the work done by the Sister of St. Mary's Hospital, Duluth. In large hospitals, the practical way is to do as has

been done there, and assign a Sister to give her full time to this work. In smaller hospitals it may be found sufficient to have a part-time worker. But in either case the one that has this important charge, ought to be given every help and cooperation. She ought to be made to feel that her work is among the most important works of the hospital. She ought to be supplied in great abundance with the books and periodicals she needs. Her activities, moreover, ought not to be confined to the patients alone, but ought to extend to the Sisters, nurses, and the students, because every one in the hospital has a mind to be fed and a heart to be enriched with worthy reading.—*E. F. G.*

THE PLACE OF NURSING SCHOOLS IN EDUCATION

As we write this editorial, the Catholic Educational Association is holding a four-day session in Detroit. All the other elements of Catholic education are well represented on its program. The parish schools, the high schools, the colleges, the seminaries, the postgraduate schools, are all well taken care of in its program. But there is one exception, one arc is missing from the complete circle of Catholic education. The schools of nursing are in no way represented in the program of the association. Yet the Catholic schools of nursing are, we may venture to say, relatively the most important of all our Catholic educational institutions. They are nearly a hundred times as numerous as our medical schools, nearly fifty times as numerous as our law schools, they are instructing a large proportion of all the future nurses of the country. They are constantly improving in methods and curriculum and perhaps in no other department of Catholic education has been made such rapid and significant progress as in the nursing school.

This year as every year their graduates have gone out by thousands to take their place in the nursing profession and an increasing number of these graduates are taking postgraduate studies to qualify themselves for nursing eminence. While our general school system takes care of only about one-half of all the Catholic students in the country, the other half going to public schools, and about one-tenth of all pupils, our schools of nursing, besides accommodating almost all of the Catholic students, are likewise educating large numbers of non-Catholics who come to the Sister schools because they expect to find there thoroughly safe and congenial surroundings and the sort of teaching which will equip them to be good nurses, in the spiritual as well as in the technical sense. These Catholic schools educate at least one-fourth of all graduate nurses.

At the same time, these schools of nursing, conducted by the Sisters, have at least the status of a high school and some of them have been admitted to collegiate rank through their affiliation with colleges or universities. The three-years' course of nursing is taken as an equivalent of two years of college, and the credits thus given enable the graduate nurse to obtain the degree of A.B. or B.S., with only two years more of college studies. It is quite significant that with all these claims to recognition the schools of nursing have up to this time been entirely disregarded in the program of the Catholic Educational Association. We sent several requests, last year and this year, that a special paper be provided for in the program to set forth their claims, and each time we received the reply that there was no room on the program. How much is the lack of this recognition the fault of the schools of nursing themselves? What do they do to bring their work and its importance before the authorities? The precept to "let your light shine before men" surely applies in its fullest sense to these schools of nursing, which are training their students for the skilful performance of a corporal work of mercy, and which, besides, give women one of the best trainings for life in the home. To make better known the work of the schools of nursing seems surely called for by their own interests and by the interests of the public at large.—*E. F. G.*

A CURIOUS INSTANCE

Our courteous guide through one of our oldest American hospitals, was showing us the ancient surgical amphitheater, where operations had been performed sixty years ago, before the era of anesthetics or of antiseptics, when the surgeons used to stick their surgical needle in red plush pincushions and handle their unsterile instruments with unsterile hands in total unconsciousness of the existence of such creatures as microbes. Those were the days of "laudable pus," and it was expected that any operative wound should be infected as a matter of course. But as we looked at the old amphitheater, and indulged in reminiscences of what we had heard about the surgical technic of those days, my guide uttered a significant statement. "Do you know," said he, "that it is down in the records of this place that at the very first operation held here, sixty years ago, the wound healed by first intention and there was no infection whatsoever." That was the only wound that healed by first intention, of all the operations performed in this hospital until news came of Pasteur's discovery and the antiseptic technic was introduced. "Is it not strange," he went on, "that it never occurred to all the surgeons and physicians hereabouts to draw the simple conclusion that the wound of that first operation healed without suppuration because everything was new and clean and the instruments were used for the first time; and that the subsequent operations resulted in suppurating wounds because of a lack of cleanliness? Yet the inference was never made, and infection continued to be passed on from one operation to another by unclean hands and unclean instruments until far off in France a man who was neither physician nor surgeon made the discovery which revolutionized operative procedure, and gave birth to modern surgery."

Such instances ought at least to make us very docile. The limitations of human intelligence are very great. A little knowledge is a dangerous thing, and may make us proud, but a great deal of knowledge, painfully acquired, should make us humble.—*E. F. G.*

Providence Hospital, Washington, D. C.

Inno McGill

IN the sixty-six years of its existence, Providence Hospital at Washington, D. C., has acquired international fame and attained a record second to none in this country. It is at once the oldest, the largest, and most completely equipped general hospital in the National Capital.

With about 350 beds, a well-equipped and staffed laboratory, the most modern X-ray department, five operating rooms, an operating amphitheater, and a lecture amphitheater, a modern school for nurses with its dietetic and other laboratories; postgraduate courses in anesthesia; X-ray and operating-room technic; a complete outpatient department with a well-trained social-service staff; a special psychiatric clinic for children and adults; a day nursery with classes in home economics for mothers—few hospitals anywhere can point to so ambitious and so modern a development.

From the purely missionary and humanitarian activities of this institution, Providence Hospital has rapidly progressed to a teaching organization as well, and had reached the most modern, or social phase of hospital work long before similar institutions had realized this newer mission of the hospital as a community asset.

Early History

Providence Hospital was primarily a war hospital. It was founded in 1860 by the Sisters of Charity of St. Vincent de Paul, of Emmitsburg, Maryland, and began its long and useful career in the old town homestead of the historic Carroll family; a portion of the land of that estate being given to the Order by a member of the Carroll family who entered the Sisterhood. A frame building was later erected on the site of the present hospital building.

This little frame house was surrounded by the tents of soldiers, well and ill, for in that day the region east of the Capitol was known as Bloody Hill. To care for the sick and wounded soldiers, Sister Loretto was called from Lincoln Hospital where the Sisters of Charity were then engaged in similar work for the government. The need of larger quarters was soon realized and the center building and west wing were erected, at the close of the war. The new building which now occupies an entire square was erected in 1901.

From that time each year additional improvements have been made under the efficient direction of Sister Mary Berchmans, president of the board of directors and Sister in charge. Many of these improvements have been for the benefit of patients in the free and limited-payment sections of the hospital. Sunparlors, convalescent rooms, recovery rooms, improved bathing and toilet facilities—the majority planned for the greater comfort of patients with limited means—all testify to the fact that modern efficiency has not interfered with the humane and tender care given by the Sisters of Charity of St. Vincent de Paul to those who are handicapped in fortune as well as in health.

Activities in Peace and in War

During the Civil War the Sisters were assigned to camps at Richmond and Petersburg, Virginia, Philadelphia, Gettysburg, and New Orleans. During the Spanish-American War, Providence Hospital became the main distributing center for the nursing Sisters, and Sister Beatrice was the medium of communication with the War Department. Sisters were detailed to Camp Alger, Montauk, Chickamauga, Fort Lexington, Knoxville, and Hinterville, Alabama. A band of Sisters, led by Sister Regis, went to Santiago to nurse wounded officers and conduct them back to the hospital.

During the World War, Providence was the first general hospital to offer itself unreservedly to the government for war purposes. Twenty of its medical staff and seventy-five of its graduate nurses volunteered for active service. During the influenza epidemic of 1918, more than 200 cases a day were cared for at this hospital and many nurses and physicians were gravely ill. The nursing and visiting staff lost several of its members by death in this grim war with disease. After the armistice, seventy to ninety returned soldiers were cared for daily, and not only nursed but assisted in many ways especially by the social-service department. The work of this department will be described later on. It was begun in 1908 to assist the unfortunate in Southeast Washington.

That the scope and efficiency of Providence Hospital have kept apace with the needs of the public and the advance of science is shown by the record for 1926:

Number of patients admitted during year..... 5,503
Number of prescriptions filled in dispensary pharmacy 4,298
Number of patients visiting the outpatients' department 25,486

Of the ward patients admitted, 666 were cared for by the public-welfare office at the rate of $2 per day; many of them remaining necessarily for weeks or months. Those cared for absolutely free by the hospital numbered 256. Of this total of 922, there were 236 who came through the dispensary. Every applicant of this department is given free medical and surgical treatment, with no question as to the religion or nationality of the applicant.

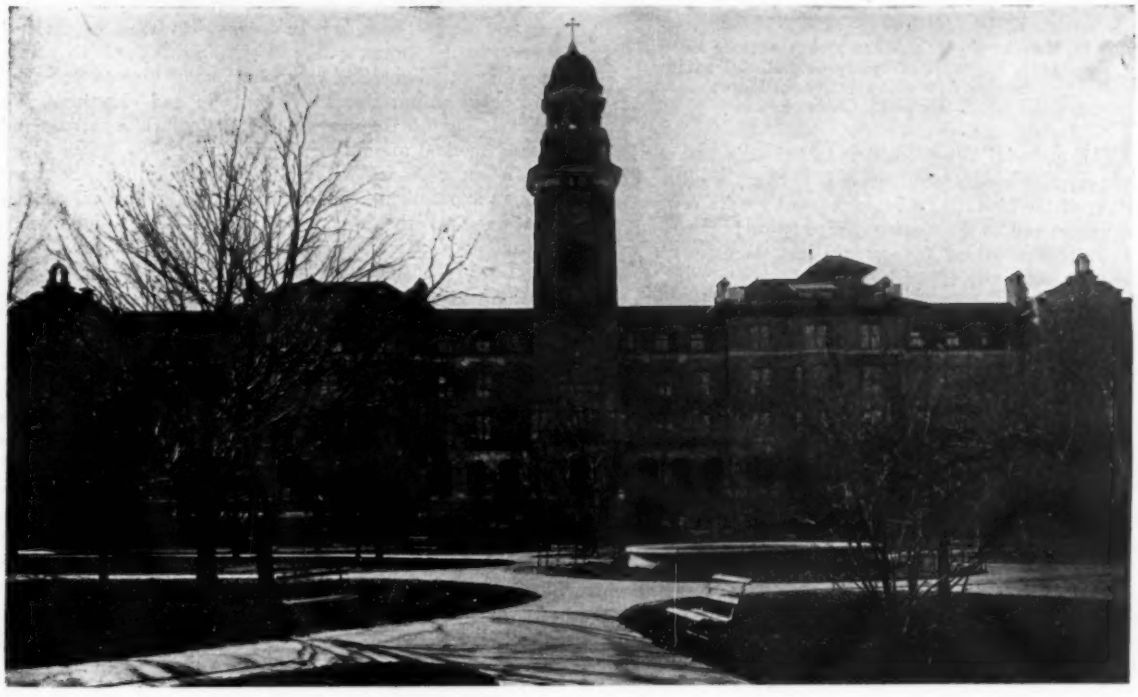
To meet the present demand for small, inexpensive rooms (where wards formerly sufficed) this year three wards have been converted into twenty-three bedrooms—each with its sunny, cheerful outlook, well-ventilated and comfortably furnished. Thus the hospital offers to the poor, at the hands of skilled physicians and surgeons, the relief and care they could not otherwise afford. Altogether, both in war and in peace, Providence Hospital has a record that reflects credit on the institution and on the personnel of its staff.

Latest X-ray Device Gift to Hospital

Providence Hospital has the distinction of operating the most modern deep X-ray therapy in the city of Washington. And also worthy of note is the fact that this outfit for the treatment of cancer and allied conditions is a gift to the hospital from Dr. Casimir Leibell, radiotherapist in charge of the department of roentgen-ray and radium therapy.

The apparatus has the tube completely enclosed. The tube is mounted above the table in a metal drum, or shield constructed of heavy sheet copper. This lead drum weighs 700 pounds but is so placed that it can be moved by the finger of even a child. The protection given by the lead-lined drum is equivalent to 3/16-inch metallic lead. The ends of the drum are heavy castings, and are also lined with lead ⅛-inch thick. All openings giving access to the shield, or observation into it, such as the door and the porthole are provided with lead ⅛-inch thick, so that when they are closed an equivalent protection is provided.

The Therapy Tube, approximately 31 inches long, is so placed inside of the metal drum that between the tube and the inside of the drum there is sufficient airspace to insulate the tube when in operation. The tube is mounted in the insulating tube holders.



PROVIDENCE HOSPITAL, WASHINGTON, D. C.

The operation of the X-ray tube, during treatment, is observed through a porthole. The porthole is covered with metal glass, framed in lead casing ¼-inch thick, and encased in a brick wall 18 inches thick. This, in turn, is entirely covered by a metal door, lined with metallic lead ⅛-inch thick. From the control cabinet outside the operating room, the physician is furnished an excellent view, through the porthole, of the therapy stand and treatment table.

The drum is grounded by means of properly connected ground wires; the patient or the operator can come in contact with the drum or, in fact, with any part of the tube holder, while the tube is excited up to an 18-inch backup, without the slightest danger.

To provide for the removal of nitrous fumes, vitiated air, as well as static and corona discharge from the tube terminals the tube-holder drum is equipped with an exhaust connection. From the suction pump and motor a second pipe is led to the outside atmosphere. With the pump in action, dried and dust-free air is drawn into the holder through filters and the vitiated air and other noxious fumes are exhausted through the pump to the outside atmosphere.

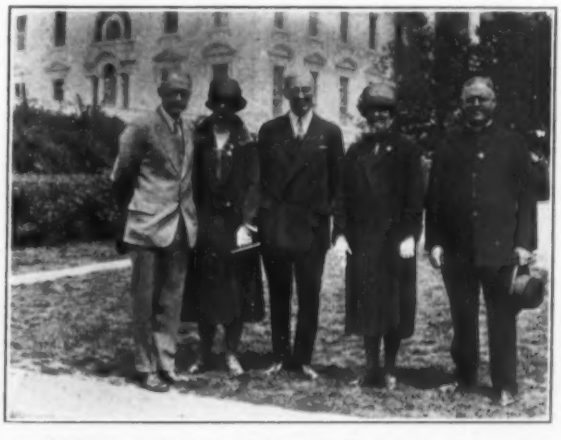
The protective drum is mounted on a carriage, supported on ball bearings, which, in turn, runs on tracks the length of the treatment table itself. Provision is made so that the drum will revolve in all directions, both laterally and longitudinally. The carriage has a lateral range of 18 inches across the table and a longitudinal movement of six feet, the length of the table.

The tube target can be raised to a maximum of 51 inches and lowered to a minimum of 27 inches above the table top. The gearing ratio is such that the safety tube-holder carriage can be raised and lowered one inch, with six turns of the crank handle.

A ½-millimeter pure copper filter, and a one-millimeter aluminum filter, are permanently fixed in the aperture. More copper filters may be inserted in a slide under the closed aperture.

The treatment table is made with the idea of utility for the treatment of any part of the body. The cylinder itself is lined with ¼-inch lead, all openings are lead flanged and made X-ray tight; door fastenings or wherever screws are used to hold the lead in position, are countersunk and the tops carefully leaded. The doors have double flange connections and the tube container itself has lead supports and fastenings so as to prevent any leakage through iron or steel.

Secondary radiations are taken care of by aluminum back of the lead, so as to prevent the lead itself from being radio-active. The table is furnished with a blower which keeps a constant circulation of air in the tube chamber, and is carried from the table by an exit pipe which can be led to an outside opening and away from the couch. The system of installation is as near coronaless as is possible. There is no danger of any serious accident to the patient with this type of construction.



COMMITTEE ON NATIONAL HOSPITAL DAY AT THE WHITE HOUSE.

THE PLACE OF THE DOCTOR IN THE CLINICAL EDUCATION OF THE NURSE[1]

Louis D. Moorhead, M.D., Dean and Associate Professor of Surgery, Loyola University School of Medicine; Senior Attending Surgeon, Mercy Hospital, Chicago

THE material to be considered in the discussion of this topic is quite widespread. In considering the clinical education of the nurse we must necessarily make reference to the papers and to the plans outlined by others of the essayists on this program. The particular task assigned to me, however, is to indicate and to elaborate upon what we consider the place of the doctor in the clinical education of the nurse.

By the term "the clinical education of the nurse" we intend that you understand her instruction and teaching, both theoretical and practical, in all topics pertaining to the diagnosis, management, and treatment of pathological conditions. Her training in ethics and household accomplishments are not parts of our consideration.

From a pedagogic standpoint the nurse is a subject of special concern. Her previous educational attainments vary with the requirements of your individual school. The distribution of her time and energy is such that her whole mind cannot be given to school work, neither has she the usual time for preclass and postclass study. Her state of at least partial mental fatigue during the hours of theoretical instruction is a factor. The consequence of the above is the requirement for particular adaptation in the curriculum. These points are mentioned here because the doctor as an instructor must take them all into account when he considers the manner and methods for the presentation of his subject to the nurses' class.

Primarily the clinical education of the nurse may be divided under two heads: The theoretical and the practical. Under the term theoretical we understand the usual classroom presentation of the clinical subjects. For the presentation of these several subjects it is customary to choose different members from the staff of the hospital and these doctors constitute a part of the faculty of your school for nurses. In this manner, only certain individual doctors have places in the clinical education of the nurse. The places that these few hold are those of instructors. Concerning them we would indicate just a few points: First, that they give consideration to the articles we have indicated above when considering the pedagogic principles involved in nursing education. Principally would I reiterate that the subject matter be simple; that the instructor remember he is not lecturing to medical students but to nurses; that he emphasize the high points in symptoms, signs, and complications of disease that they may be of value later in observation and charting. We believe that the frequent use of example is a telling and lasting method of imparting knowledge.

When we consider the clinical education of the nurse under the practical head, we understand the actual demonstration of the theoretical material considered and a definite course of instruction in certain clinical entities.

Let us consider first the bedside care of the patient. In the observation and diagnosis of a condition there are certain outstanding signs and symptoms, the notation of which are of value to the attending physician. For example, in toxic goiter, the tothycardia, the tremor, presence of exophthalmus, perspiring hands, quick flush, are of importance. In peptic ulcer, the location of distress, the time of onset, means of relief or accentuation mean much. In our present system of education are points such as these emphasized to the nurse and does she note them in charting? Let me offer a suggestion. In many hospitals the different members of the staff are particularly interested in certain subjects even if they do not claim specialization in the subject. May we suggest that these men conduct bedside clinics or instruction for the nurses in small groups explaining and demonstrating important matters to them. The nurses will then understand how to observe a patient and how intelligently to chart her observations. The management of various pathological conditions is based on certain sound principles. The doctor should explain the method of management and treatment of these conditions and the principles on which they are based. In this manner we shall educate better nurses, we shall increase the value of the nurse to the doctor, and, above all, we shall render better service to the patient.

Following in this same line of thought, we would like to emphasize practical instruction and demonstration in the general and special laboratory procedures. Understanding of many of the general laboratory procedures will facilitate the intelligent collection and preservation of specimens.

Devoting our attention to the special laboratory tests, a patient is told that in the morning she is to have a metabolism test. It is something new. She becomes frightened and worries. If the student nurse on the floor has learned from practical demonstration the principle and method of conducting the metabolism test, how easily she can reassure the patient and how much more intelli-

[1]Read at the Seventh Illinois Conference of the Catholic Hospital Association, East St. Louis, May 4, 1927.

ST. JOSEPH'S HOSPITAL, KEOKUK, IA.
CLOSING OF THE NURSES' RETREAT. NEW MEMBERS AND OFFICERS OF THE NURSES' SODALITY.

AMBASSADOR HERRICK SPEAKING AT THE GRADUATION OF NURSES AT AMERICAN HOSPITAL, PARIS, FRANCE.

gently she can prepare the patient and thus make the test of far greater value.

Practical instruction in the work of an X-ray department and even a physiotherapy or hydrotherapy department should be considered in the same way. But we had better sow the seeds of these few thoughts with you and permit their development to come in the discussion that is to follow.

THE IDEAL SCHEDULE AND ITS IMPORTANCE AS AN EDUCATIONAL FACTOR

Sister M. De Chantal, R.N., St. Mary's Infirmary, St. Louis, Mo.

THERE is no resting place in the march of education and personal development." From the days of the laborious task of mastering the "Three Rs" in the "Little Red Schoolhouse," to the present day of theses and degrees, "progression" has been the keynote, the "Open Sesame." Educators and those interested in education have devoted their lives to its development. Schools, colleges, and universities have been established. Great minds have worked out plans and methods whereby the intellectual faculties of youth may be strengthened; their individuality brought out; power of thinking and acting for themselves emphasized, so that in the end they may be able to fill creditably the place destined for them.

As in the field of general education, "progress" is the watchword, in just the same degree is this true in the field of nursing education. The motto, "Ever onward, ever upward" has been in the minds of all connected with this noble profession. As tremendous strides have been made in the past ten years in medicine and surgery, preventive medicine, medical education, and service to the patient, so, also, has progress been made in the schools of nursing; not only in the subjects taught but also in the method of presenting these subjects and in the preparation and fitting of those who are to teach them.

A little serious thought given to the term, "School of Nursing," will discover a deeper meaning than that which lies on the surface. One is apt to picture the nurse, in her dainty uniform, carrying appetizingly designed trays, arranging the pillows, and performing many interesting tasks for the sick; or again, on the day of graduation, when, after the prescribed time of study, she receives her diploma and listens to laudatory speeches about the nobility of her profession. Does one often consider what real meaning is attached to this term? And what responsibility rests upon those who represent this school, the superintendent, and all those who assist in the training of the nurse?

These young women enter our schools of nursing scarcely out of their teens. They have, perhaps, the fundamental training of the high-school branches, but is not the glamor of cap and uniform uppermost in their minds? Do they know and understand the real meaning of the words, "Trained Nurse"? It is the duty of those in charge of the school to develop and strengthen the characters of these young women, to lay the foundation of a conscientious and lively sense of duty and a sense of responsibility which will place the welfare of the patient uppermost in their minds and will lead them to lay aside their own wishes and interests when life is at stake.

It may seem that the subject of this paper, "The Ideal Schedule" has been overlooked, but this is not the case. The training of the nurse must be twofold, it must include the theoretical side and the practical side. The ideal schedule will be one in which these two are made to work hand in hand; one cannot be sustained without the other and one should uphold and strengthen the other. The superintendent or instructress, if she has the true idea of her office will arrange these two parts of the course so that they may serve to inculcate and foster those deeper lessons, those traits of character, of intellect, and of heart so necessary to the nurse if she hopes to succeed in her career. Let us consider these two divisions of the curriculum separately, and see just what relation they should bear one to another in order to round out the nurse's training into a complete whole.

The theoretical side of the course includes the lectures, quizzes, recitations, and assignments, in fact, all that pertains to the theory of nursing. The practical side includes the actual work on the floor and the demonstrations in class, where the pupil nurse actually does the work under the supervision of one who has had experience in caring for the sick. In this way the awkwardness of the beginner is overcome. She acquires a certain dexterity so that she is able to carry on her work with the patients more intelligently.

In the theoretical course the lectures are given by members of the staff. The fund of knowledge and experience gained by men who have spent years of study and research in their own special branches, is given to the pupil nurse in an interesting and practical way which is most valuable to her. Through notebooks correctly kept she is enabled to carry away much information which will serve her well in the future.

In conducting the classwork, the textbook should not be adhered to too strictly. A good text should be used but it should serve more as a foundation, to bring out the individuality of the student; as an incentive to thought, so she will either present problems which may occur to her suggested by what she has read, or, will recognize like conditions in the cases she has cared for and will bring them up for discussion or information. This is one bond between the theoretical and practical work and the student's powers of observation are cultivated and strengthened. The best place in which to carry on this phase of the work is in the quizzes and recitations where the members of the class meet with the instructress and talk over the lectures, or questions are asked in order to ascertain how much has been gleaned from the lectures. Here the teacher learns to know her pupils; the feeling of awe which is often present in the lecture room is absent here; the teacher gains the confidence of her pupils and they are not afraid to ask questions and bring their difficulties for her to solve. If the teacher herself is on the "qui vive," many a little point in ethics can be introduced, many a valuable lesson taught in these hours of round-table talks, as it were.

Another part of the schedule which should not be overlooked is the assignments, or library study, or lesson preparation—call it whatever term you like—in which the student is asked to bring an account of some interesting case she has observed, or she is required to look up data and write a short paper on some person or period connected with the history of nursing. This encourages her to read, it makes her attentive to what she has read and familiarizes her with the works of scientific minds, thus broadening her outlook and inciting her to deeper study.

All these lectures, recitations, assignments, etc., have a distinct place in the progress of a nurse's education. The nursing school, however, should not be separated from the hospital, the actual bedside nursing also, has a distinct place in her education, for will not the hospital always be largely the school? Here she will learn by actual experience that care of the sick no book can teach, here she will learn those deeper lessons of sympathy, kindness, and unselfishness in the care of the afflicted and suffering. Her practical work must be scientific; we are living in a scientific age and it is the duty of those charged with the training of nurses to see that they are kept informed as to the latest methods and the equipment used by them must be adequate in every way. The student must be taught facility in the use of this equipment and she must apply the modern methods in a scientific, up-to-date manner. The time allotted her in the various departments must be arranged so that she has an opportunity to become familiar with the work in each department. In this way she will be able to help herself later on when she is thrown on her own responsibility and has no one to supervise or assist her. If she wishes to specialize in one particular branch of the work, let her do this later in post-graduate courses through association with one of the many institutions doing highly specialized work, where she has ample opportunity to satisfy ambition or to pursue a special interest.

Thus far we have considered the ideal schedule with reference to the pupil nurse. There is also a responsibility resting upon the one who is to carry out this schedule aside from the mere arranging and planning of the hours. If the classes are to be conducted in the proper way to be of the greatest value to the student, the teacher must continually prepare herself. She cannot afford to get into a rut; aside from having her subject well in hand, she must be on the watch for the newer methods and ideas, familiarize herself with them and think out different ways of presenting the subject to the pupils. She must bring herself to their level, explaining the subject matter in a clear and simple way to suit the minds of those inexperienced in scientific terms and phraseology and not take for granted that they have her conception of the subject. To do this most efficiently she ought to be a person who studies, reads, and thinks, for only in this way can the spirit of teaching be cultivated. Alexander Pope says:

"True skill in teaching comes from art, not chance,
As those move easiest who have learned to dance."

The atmosphere of our Catholic hospitals has a distinct value in the training of the nurse and the school of nursing conducted by Sisters has a distinct influence upon the character and lives of the student nurses. The contact of the pupil with her superintendent and teachers should have a touch of family spirit rather than a strictly business, pupil-and-teacher atmosphere. The pupil's confidence must be gained by kindness rather than force, and her interest in, and loyalty to, the school should be aroused and maintained by consulting her teachers when advisable. In this way the schedule will have an educational value, for education is more than mere book learning. The personal development and character of the nurse will often count more than diplomas.

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Bile and Bile Pigments[1]

F. E. Kliman, M.D.

Within the past few years considerable experimental and clinical investigations have been carried out in order to gain a clearer conception of the diseases involving the biliary system. As a result much light has been shed upon the physiological phases of this system and several so-called established truths have been discarded for the more recent theories. It is my purpose in this paper to set forth a few of the more accepted theories pertaining to the biliary system.

According to Carlson, bile is continuously secreted by the liver and is found in the duodenum even after long periods of fasting. The amount of bile secreted in 24 hours varies between 1,000—2,000 c.c. The amount secreted increases with pleasurable emotions aroused in the subject, or when fatty or high protein food is ingested.

Bayliss and Starling claim that the secretion of bile is under the control of the same mechanism that regulates the flow of pancreatic juice, i. e., the hydrochloric acid of the chyme, as it enters the duodenum, transforms the *prosecretin* in *secretin;* and this in turn enters the circulation, is carried to the liver and stimulates the bile-forming mechanism to increased activity.

Further knowledge has been added to the subject by Copher, Kodama, and Shuichi, who have shown by cholycystography and animal experimentation—that a *resistance* to the outflow of bile from the common duct is necessary for the *collection* of *bile* by the *gall bladder.* And further, that an *increase of pressure* in the biliary system is necessary for a filling of the gall bladder.

The resistance to the outflow of bile from the common duct into the duodenum (a factor in increasing biliary-system pressure) is largely due to *tonus* and movements of the duodenum. As a result of this regulatory mechanism at the distal end of the common duct, there are considerable changes of pressure in the gall bladder and the rest of the biliary tract, which not only aid in filling the gall bladder, but are a factor in its emptying.

In an etherized dog, close the common duct and there is an immediate rise of pressure in it followed shortly and consecutively by a rise in pressure in the gall bladder and hepatic duct. When the common duct is opened, the opposite is found, namely, the pressure falls. If the common-duct sphincter is open, bile will pass out from a distended gall bladder. Bile coming from the hepatic ducts may assist in the emptying of the gall bladder in a manner similar to the action of a filter pump. The bile in its passage down the ducts, to the duodenum, becomes diluted and tends to produce a negative pressure in the gall bladder. When the gall-bladder content is at a minimum pressure, it will not discharge bile, even though it is not entirely empty.

It has been shown that the liver secretes against a pressure in the common duct of 60 mm. of water; that the resistance in the cystic duct is 30 mm. and the resistance at the sphincter of Oddi, 120 mm. of water. The origin and fate of the bile pigments has been a matter of controversy for a long time, but newer methods of investigation have cleared up many hazy points.

Bile is made up chiefly of water, cholesterol, fat soaps, fatty acids (glycocholic and taurocholic), and the bile pigments, namely, biliverdin and bilirubin (present in normal bile), also bilifuscin, biliprasin, bilihumin, bilicyanin, choleprasin, and choletelin (present in calculi and post mortem bile). We are chiefly interested in the bile pigments found in normal bile, i. e., bilirubin and biliverdin, the red and green pigments.

[1]Read as Thesis for Membership, St. Mary's Hospital Staff, Duluth, Minn., October, 1926.

Where Are These Pigments Formed and What is Their Fate?

Bilirubin is apparently derived from the blood pigment, the iron freed in the process being held by the liver.

Mann and his coworkers have shown that the liver is not essential for the production of the bile pigment (as was formerly thought), that a high percentage of it may be formed outside of the liver, and the conversion of hemoglobin into bilirubin occurs in the marrow, spleen, lymph, glands as well as in the Kupfer cells of the liver. Mann, however, is of the belief that the liver is the *sole excretory organ* for this pigment, in health.

Whenever there is an excessive destruction of blood corpuscles, there is an excessive formation of bilirubin. Bilirubin on long standing in contact with the air is oxidized and forms biliverdin. Under normal conditions, the bile pigments enter the duodenum, and in the bowel are decomposed by the action of the intestinal bacteria, forming *urobilinogen* (urinary bile pigment). Some of the urobilinogen is absorbed from the intestine and by a reverse chemical reaction is reconverted, in the liver, into bilirubin and is secreted in the bile. The remainder passes through the kidneys as urobilinogen which *forms urobilin,* through the action of light on the voided urine.

Schneider believes that *bilirubin* is a threshold substance for the liver and kidney, and its threshold is many times higher than *urobilin.* Bilirubin cannot escape via the kidney, because the dam is higher than the liver; urobilin does not accumulate in the blood stream since it can pass through the kidney very easily. In support of this view McMaster and Ellman have shown in animals that over 80 per cent of the liver can be obstructed before *bilirubinuria* occurs. However, they believe, that with *urobilin* the margin is less and have demonstrated that *urobilinuria* occurs with local obstruction of one-third of the liver. The evidence points to urobilinuria as a valuable finding, indicating the inability of the hepatic cells to take out of the circulation the *urobilin* conveyed by the *portal blood* and further that urobilin in the urine is seen with a less degree of liver damage, than *bilirubinuria.*

How Do These Pigments Behave in Pathological Conditions?

In common duct obstruction large amounts of *unaltered bile pigment* are found in the urine. These bile pigments remain *unaltered* because they are not acted upon by the intestinal bacteria. Because the bile does not reach the intestine, the pigments are sparse or absent in the stools. Since the liver is the sole excretory organ for the bile pigments, when there is excessive destruction of blood corpuscles (hence increase of bile pigments) or a deranged liver function, the blood and body fluids must take up the bile pigments first, and later the skin and mucous membranes become the seat of pigment deposits, causing what we term jaundice.

If the obstruction of the common duct is only partial, some of the bilirubin reaches the intestine, is converted into urobilinogen, and this, in turn, appears in the stools and urine. If the obstruction is complete, there is absence of pigment in the stools (clay stools) and a bilirubinuria occurs.

Of the more important laboratory tests which have been advanced recently, may be mentioned the Van den Burgh, and Icterus Index Tests which are the simplest and most effective.

The Icterus Index Test

The method is a colorimetric one, the standards being prepared dilutions of potassium-dichromate solution. To the 1:10,000 dilution, the index of 1 is assigned, and between this concentration and 1:100 which has an index of

100, there are prepared as many other concentrations as are found advantageous.

Technic:[2] By venipuncture about 5 c.c. of blood are drawn and collected in a small test tube. This is kept at room temperature until the clot begins to retract and then is centrifugated. From the serum so prepared, 1 or 2 c.c. are removed and placed in a tube similar to those holding the standards. The two are then compared in a simple comparator in direct daylight. Normal serum should have a color corresponding to a standard dilution of 1:2000 or index 5, although 4 to 6 is considered normal.

The serum used must be clear, so it is recommended that the blood be drawn after a fast of five hours, or after an overnight fast; in this way there are no fat droplets in the serum unless lipaemia exists.

Interpretation: Hyperbilirubinuria is produced most commonly by the following circumstances:

1. Destruction of red blood corpuscles (hemolytic processes).

2. Obstruction in the liver itself, cirrhosis, malignant disease, passive congestion.

3. Obstruction of the bile passages, inflammation, tumor, stone.

When blood is destroyed by other than hemolytic processes, subnormal amounts of bilirubin are found in the blood serum. These are cases of secondary anemia. Thus the test may be used to distinguish between primary and secondary anemia. In primary anemia the index is above normal. It is quite possible to detect the onset of jaundice before it can be seen on the patient.

Even transient obstruction of the bile ducts is often followed by an increased index for from 12 to 24 hours. An increased index in blood obtained during the attack of pain and later dropping to normal is therefore a great significance. No increase in index occurs in association with the pain caused by an inflamed appendix, renal calculus, or by either a duodenal or peptic ulcer unless there is a disturbance of liver function at the same time. Conditions affecting the liver usually cause a less acute but more permanent rise in the bilirubin. It affords a satisfactory means of following the course of a definitely jaundiced case. This is especially important in infectious jaundice where it is sometimes difficult to decide whether or not the jaundice is subsiding.

It is of value in following cases of syphilis under treatment with arsphenamine in order to avoid continuous treatment after liver damage has been done. By means of this test various degrees of jaundice may be demonstrated in many conditions other than those mentioned above; e. g., in cardiac insufficiency in which jaundice is often difficult to demonstrate, in hepatic cirrhosis, in malignant disease of the liver. This test, however, does not help in differentiating between these various conditions except in an indirect way. As a rule the higher indices are usually found in common-duct obstruction from such causes as pancreatic tumor, or a stone in the common duct, or in (catarrhal) infectious jaundice. The index figure in conditions involving the liver itself, such as passive congestion, cirrhosis, and malignancy is not usually so high.

The Van den Bergh Test

This test is too complicated to do in one's office and only the principles of the test are discussed here. Blood is withdrawn as in the icterus index test. The serum is used and Ehrlick's diazo reagent added, which produces a reddish to a purple color in the presence of bile pigment. The time of appearance of the maximum color is noted. If a reddish-violet color appears within the first *30 seconds*, the *direct* reaction is said to be *immediate*. If no color appears until after 30 seconds but does appear later (it may not appear for as long as an hour) the reaction is *delayed direct*. If no color appears it is a *negative reaction*.

Indirect Reaction: Here the color is produced by the intervention of 96 per cent ethyl alcohol added to the Ehrlick's reagent, in presence of bile pigments (bilirubin).

Interpretation of the Test: The direct test may result in one of three ways:

1. *The immediate direct*—When this reaction occurs the bilirubin is believed to be present in the form in which it occurs in the bile, hence an *obstructive jaundice* is indicated. It was found in seven cases of occlusion of the common duct by stone, and in seven cases of common duct occlusion by tumor or pancreatic disease; that the *immediate direct reaction* occurred.

2. *The delayed direct reaction* and *the negative direct reaction* must be grouped together clinically for either may occur when there is increased bilirubin of the nonobstructive or hemolytic type. In the anemias, in chronic cholecystitis, and usually in the infective or toxic jaundices, the reaction is of this type. The amount of bilirubin present, as determined by the indirect reaction, does not determine the presence or absence of the delayed reaction, for a high indirect reading is in several instances accompanied by an absent direct reaction. Three forms of bilirubin must therefore be distinguished: That giving the immediate direct reaction, that giving a delayed direct reaction, and a third which gives no direct reaction. All *three react* in the presence of alcohol and give a *positive indirect*.

That there is a distinct difference between the obstruction pigment and the hemolytic there can be no doubt. The indirect reaction is purely quantitative; all forms of bilirubin apparently react to it. The *normal* serum has been found to contain bilirubin in a concentration of from 1 to 3 mg. per liter, or, in terms of units, from 0.2 to 0.6 unit.

Conclusions

1. Liver studies are better establishing the physiology of pigment formation, reabsorption, and elimination.

2. Certain tests yield us valuable direct evidence as to the liver and bile passages and indirect evidence as to the haematopoietic organs.

3. The Van den Bergh test checked by clinical findings differentiates consistently between jaundice of obstruction and of hemolysis. It is also a test for liver function only insofar as it indicates alteration in bile pigment metabolism.

4. The Icterus Index test also has a distinct clinical usefulness since it determines to what extent the liver function is disturbed—giving us a means of establishing latent jaundice, and measuring degrees of increasing or decreasing objective jaundice.

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ST. MARY'S HOSPITAL, DULUTH, MINNESOTA—STATISTICAL FACTS FOR THE YEAR 1926

The standard "Yearly Hospital Statement" is likely to be as vivid and exciting as a Congressional roll call or a segment of a dictionary. This is an attempt to translate the ordinary statement into a more vital form.

A hospital exists for its community and its patients. This one serves in an immediate center of an urban population of 120,000. Adjacent to it, within an easy auto radius, are approximately as many more.

Those Who Came to Be Served

During the year of 1926, 7,406 people received 72,743 days of hospital care. Of this total 11,043 days were given as "free service." This considerable proportion, amounting to 14 per cent of all the hospital service, has been made possible by some aid from a well-functioning "community fund"; it assists in maintaining the free dispensary and paying the way of certain indigent sick. However, the hospital has extended (chiefly to outside people) a total of $12,000 in charity, or about 50 per cent of all charity done. In addition, 3,397 patients received free treatment in its "outpatient department."

What Was Done for Them

Let us put first—since the future belongs to them—679 babies, born, and sent forth, foot-printed and lusty. Much larger is the number for operations: 3,447 operations were performed in the year 1926; but it should be interposed at once that while the record of them is well kept, there is in all hospitals a growing attention to many other details and specialties besides surgery. At St. Mary's an occupational therapy aid has been added and is now working with the greatest satisfaction. Note also that 5,312 treatments were given in physiotherapy. And lest it be assumed that the folk who come to us existed on the food they took before entering the hospital, let us hurriedly add that nearly 600,000 meals were served them here. Moreover, two and three-quarter million pieces of laundry were done for their comfort.

Hospital Beds, Administration and Nursing, General Plant

We should become familiar with the modern term "bassinets." Here are 36 of them. Then there are 30 beds for children, and the remaining 244 serve for all the other departments. There are 40 Sisters on the administration and nursing staff. Besides these, 125 student nurses, with eleven graduate lay nurses, employed technically or as teachers, account for the direct bedside and operating service. Yet, as with any army, there must be those to keep intact the "lines of communication"—so we find a chief engineer with five assistants; a carpenter and a painter; a wall washer; five janitors and a yard man. There were employed besides nineteen maids, nine laundry employees, and eight kitchen helpers to assist in this modern miracle.

Doctors, Interns, Record Room, and Laboratory Staff

This is an open hospital, with 52 physicians on the regular, and 72 on the visiting staff. The average attendance at the regular monthly staff meeting is 50, and at the regular pathological conference held each Friday morning about 40. Seven interns and a regular whole-time pathologist comprise the resident staff. Eight laboratory technicians worked together to perform a grand total of 38,582 examinations. The flat rate of $3 charged for the examination of each patient remaining over 24 hours, while it has greatly increased the work, has been most satisfactory.

Six office workers are employed in the business office and record room. Dictaphones are used to great advantage. The history sheets have been simplified, but the record committee has insisted on conformity to rules, and the staff meetings of the past two years have not been devoted, to the same degree as formerly, to the analysis of incomplete and unsatisfactory charts. That work (once it is well done), builds the foundation for proper statistical studies as the years go by. For example, a recent candidate for staff membership took as his thesis subject, "Fracture of the Femur" and reviewed 50 such cases from the hospital charts, treated in a period of four years. He gave a followup of the patients and in every way evidenced not only his capacity but the character of results which the hospital is securing in this connection. Staff organization means much in medical education, and it may be safely stated that this is reflected by the unusual

number of interns who have applied here within the past three years.

Library and Diversion for Patients

A Sister gives her whole time to the matter of bringing to the patients suitable reading. She makes her daily round with a library truck, leaving to those able to read, pabulum for their minds. The latest novels vie with saintly biographies—something for everyone's tastes. The hospital is indebted to many generous donors for the books and magazines. The city librarian comes once a week to augment this library service and adds to the books available the rich development of our main city library. In addition a growing medical library, belonging to the St. Louis County Medical Society which is indexed under the Dewey system, is being supervised by Miss M. L. Lockhart from the public library. Since this library is at present housed next to the hospital record room, it easily provides reading opportunities for the staff and interns. The citizens and doctors have been most generous in contributing, but more books would be greatly appreciated.

The Spirit of the Institution

This is best interpreted from the simple statement: The hospital is full; the nurses' training school has an abundance of applicants; fine interns are always available from a growing list of applications; the staff members are proud of their position. A splendid spirit of cooperation radiates throughout all the work done—it began years ago with the devotion, foresight, and persistently unselfish service of the Sisters of the Order of St. Benedict.

THE MEDICAL PROFESSION—ITS ATTITUDE TOWARD FAITH, HOPE, CHARITY—AND SCIENCE[1]

E. L. Tuohy, M.D.

THIS occasion provides a happy gathering of the staff doctors of St. Luke's and St. Mary's Hospital, Duluth, Minn. We are glad that this friendly coming together is made possible by the splendid attitude of cooperation between these two very worthy institutions—the one under Protestant, the other under Catholic control. I express, on behalf of all our members and our guests, our deep appreciation to our most gracious hostesses of the occasion —the Sisters of Saint Benedict.

Some of the introductory remarks which I shall make are in a measure directed toward our most kindly and gifted spiritual director of St. Mary's Hospital—Reverend J. J. O'Mahoney, of Morgan Park—who is one of our speakers for this meeting. I ask him to rest under no feeling of uneasiness—my intention is not to instruct him, but rather to give some brief statement of what I hold to be the great mission of these most serviceable, privately-managed hospitals, and to attempt to formulate the conception of service to which medical men, engaged as we are, subscribe.

Medical service, as exemplified in such hospitals as these, appears at present to be popular. These hospitals are busy, and are succeeding in standing on their own feet without endowments, and are making their own way. Neither staff is closed, and any and all reputable physicians are welcome. This favorable situation of doctors and private hospitals, I judge, comes from the rather widespread feeling that they assist greatly, both in the prolongation of human life and in the promotion of its comfort; that this alliance of the best religious traditions in managing these hospitals, combined with the gifts and gleanings of science as interpreted and administered by doctors, is a successful and appreciated combination, promoting the safety and the advantage of our community.

[1]Introductory remarks of Dr. E. L. Tuohy, Chief of Staff, St. Mary's Hospital, on the occasion of the staff dinner, Jan. 5, 1927, Duluth, Minn.

At a time when fundamentalists and evolutionists are jumping at each other's throats, with lack of knowledge as well as regard for their opponent's knowledge and convictions; when these gallant strategists gather their daily offensives, liberally equipped with printer's ink, and flood our daily press with misunderstood accusations, it is no little comfort to gather under the banner of the great Pasteur, and find within the daily efforts of doctors a beautiful and practical evidence of "Peace on earth, to men of good will." Our enemies are the enemies of mankind. We stand under the banner of the great Pasteur to continue the fight of science to emancipate countless thousands from the shackles of disease and pain. May we have in addition some of the spirit which led him to say with all humility, "I have the faith of a Breton peasant." One draws close to his tomb to see inscribed on the tablets of the four walls as they face each other, the names of the great blessings and virtues: faith, hope, and charity—to which those who deeply revered his name and his life added a fourth—and the name is *Science*. It is concerning this galaxy that I wish to offer a few comments, and my purpose in doing so is to attempt thereby to give an expression of how the doctors would have their service adjudged—their purposes understood.

The necessity of faith can never be challenged. We lack so much of needful knowledge even where the most is clarified, that in all truth we are in darkness without faith. Columbus had faith that he would find land by pushing far westward over uncharted seas. Marconi had faith that he could hurl an unguided message over those same seas. However, neither of these great men acquired this faith by any miracle; it came to them by seeking out all the facts known about their exploits, and where none were available they went out and found them. Indeed, "Faith has the power to move mountains," but can anybody sense a weakening of its powers when it moves away from superstition and joins up with science?

It is all too often inferred that doctors are unbelievers all the facts known about their exploits, and where none away from the supernatural, Galileo might have been blamed for a lack of faith, but he helped mightily to create a far better one. With his mind wandering in church, he watched the censer swinging pendulum-like. He noticed that as it rose and fell it retarded and accelerated in a definite tempo, which he compared with the regular beating of his pulse. He abandoned the study of medicine, became a great mathematician and astronomer, and paved the way for Newton to interpret for us a far more wonderful universe than had ever been contemplated before.

Then, as now, overzealous fundamentalists and poorly trained scientists clashed, but be it to the eternal credit of the Pope, Galileo's rebukes were greatly tempered, and the Vatican for centuries carried on some of the world's best astronomical researches. Has God been dethroned from the heavens by the results of these studies? The answer, ringing down through the centuries, from the really trained minds of scientists and religionists—the naturalist and the supernaturalist—is that the one is complementary to the other, and where eternal truth is found and correctly interpreted there can be no disagreement.

We have actually seen mountains moved at Panama, where faith in the possibilities of the canal venture was linked up with engineering and medical science; where a Gaillard and a Gorgas joined with a Roosevelt, and finished an undertaking where a DeLesseps failed. This is certainly no criticism of either that great engineer or the French; had he not already built the Suez Canal? But, history now recites that the enthusiastic planning of the cut had not figured upon mechanical difficulties in trans-

port, and most of all had overlooked the enormous hazard of tropical disease.

Scientific men do not lack faith, but theirs is not the faith of the Marabout, who teaches his followers to draw a chalk circle about them to wall off evil spirits. Ours is the faith of a Colonel Gorgas—of men who do not cringe before the unknown, but who believe profoundly in the orderly laws that guide the universe, and hope, more than all else, that the time may gradually come when mankind will come to understand these laws, making them our servants rather than our oppressors.

Thus I have come, without planning the sequence, to the next regular blessing or virtue—hope. Someone has said:

"He who loses money loses much,
He who loses friends loses more,
He who loses hope loses all."

It seems to us, however, that to many people of Micawber disposition, hope represents at all times an effort deferred. They seem to feel that if they wait long enough their task will not have to be done. To others, hope seems to concern the matter of the possible demise of a wealthy relative before some vampire dissipates, in spirited but futile revelry, the coveted patrimony. Again, it appears to be a sort of fatalism—a resignation that accepts mediocrity. If such a spirit dominated our doctors and our hospitals we could not look back upon an average increase of life from about twenty in Queen Elizabeth's time to the present average span of fifty-eight years. And, if that spirit dominated our clergy and Sisters, they would not be giving us at present the splendid support and assistance which is obvious. Doctors are supremely human, and, therefore, as the poet said so feelingly for mankind as a whole, that "Hope springs eternal in the human breast," we certainly demur as physicians if left out. But our hope is not that some magic wave will dissipate all the ills of mankind, yielding us a Utopia, but that God's laws will come to be known and respected—in a word, that "His will be done on earth as it is in heaven."

"And the greatest of these is charity." Custom has long associated the name of "doctor" with this great virtue —to such a degree, in fact, that it has almost come to indicate that if a physician is not himself (at least in his later years) the recipient of charity, that he must have abused his talents and his vocation. The time has come to make quite clear the absurdity of this view. Just now a rather useless controversy is waging between Henry Ford and highly respected members of the great Jewish race. Henry Ford is a far better manufacturer than he is a historian or economist. One does not need to read the *Dearborn Independent* to get an estimate of the man. The whole world is too intensely interested in him and his fabulous financial gleanings ever to let him alone; and whereas the vaporings of the ordinary man are only bantered around the block, his encircle the world.

Ford has lived and preached the gospel of making conditions and wages such that every family has the means, through its own efforts, to have the ordinary decencies of living and the safeguards against disease and accident. Some of these safeguards are the sops which philanthropists for ages past would throw to the poor, and they would use an unpaid medical profession as the agency in carrying out this noble gesture.

Not all the soap-box economists nor all the labor-union agitators combined have done one-hundredth part as much as Henry Ford in creating a great independent middle class of people who are decently supporting themselves and have become the great force which has made our type of medical practice and hospitalization possible. What governmental Utopia could anyone ever have envisioned which would put, for example, an automobile in the service of each of nearly thirty million families in our land? What governmental agency would ever have given us the kind of keen, intelligent, nonpolitical, competitive effort so well exemplified in the two hospitals represented here tonight?

Let us think of these features before encouraging incautious legislation or privately endowed hospitals and clinics, which tend inevitably to furnish free medical and hospital aid, where it pauperizes more than it relieves. In other words, we point to what we are accomplishing under private management and control, and ask unbiased observers to compare our accomplishments and costs with publicly supported hospitals anywhere. We stand on our record. We have provided the means of caring for every needful instance of aid, either partial or entire. This, we maintain, is enough, unless we desire in America to abandon our efforts to maintain strict individualism, and plunge ourselves into a regime where the state not only guides our destiny, directs our energies, but also provides for our infirmities!

We are grateful that we live in a well-proportioned land; that a better understanding of our efforts grows daily; that we are not expected, as are the modern descendants of the great early Arabian physicians, to grow a long tangled beard or work a lot of dirty grime and food into our clothes, in order to combine a proper proportion of benevolence, beggarism, and mysticism. The profession of medicine is slowly coming into the light, and we are supremely grateful for the opportunity given us to work respectably in this beautiful and orderly city. In return, we should pledge the promise of a supreme effort to keep up with our fellows in a profession that has moved forward as rapidly as have our instruments of communication and travel—and these, as you know, are the marvels of the age.

Organized religion has tried too long to live on charity. What it needs sorely is not largess, but a means of orderly and consistent support, based on nothing less than the splendid principle that "the laborer is worthy of his hire." Science and religion are indeed complementary. They should have that finer portion of charity which is described as the beautiful gift of understanding. When we come to spread that mantle over the efforts of others, at the same time that we ask them to extend it to our own, there will cease to be the apparent strife that renders the pagan world aghast when it compares the promises of our religion with what we actually display.

And what shall I say of science? May we actually espouse it with that faith that is not born of fanaticism; with that hope which is not a vainglorious boast, but a trust in Divine righteousness; with that charity which admits our weaknesses, and seeks by understanding ever to climb toward the light. Thus may we expand the opportunities and benefits of our great profession, and seek to merge the gifts of science with the greatest of all blessings and virtues.

FOUND AT MILWAUKEE AUDITORIUM DURING
Hospital Clinical Congress, June 20-24, 1927

1 brown-handled woman's umbrella
1 pair black silk gloves
1 pair tan silk gloves
1 pair tan chamoisette gloves
1 large, black rosary
1 gold pencil
1 purse containing two pencils and a paper with the name "Marion Ott"
1 small notebook with dietetics notes
1 50-compartment stamp collector's wallet with stamps

Send or call for these articles at the headquarters of the C. H. A., 124 13th St., Milwaukee, Wis.

The Dietitian's Department

Conducted by Florence H. Smith, S.B., Department of Nutrition, St. Mary's Hospital, Rochester, Minn.
Suggestions and Correspondence Welcome.

THE KAREL DIET AND A MODIFIED KAREL DIET IN THE TREATMENT OF CARDIAC DROPSY[1]

Edwin G. Bannick, M.D., Fellow in Medicine, The Mayo Foundation, Rochester, Minnesota, and Florence H. Smith, B.S., Department of Nutrition, St. Mary's Hospital, Rochester, Minnesota

The importance of a diet that is low in salt and water for certain cases of edema has long been recognized. Widal, in 1903, demonstrated the efficacy of a diet low in salt for certain cases of nephritic edema. Long before his work was published others had successfully used diets that embodied these factors in the treatment of edema cases, but they did not explain their good results on the basis of a low salt and water content. Among the earliest of this group of writers was Karell, who in 1866 published a paper in which he outlined a special "milk diet" or "milk cure" for use in edema cases. This diet later became known as the Karell diet.

Goodman, in 1916, reported favorable results from the use of the Karell diet in the treatment of cardiac, renal, and hepatic dropsy. The following is quoted from Goodman's paper: "Although half a century has elapsed since Karell published his paper (1866), this particular form of diet bearing his name seems to be little known and but rarely used. In Germany it is slowly finding its place, but as recently as 1908 Jacobs *(Münchener medizinische Wochenschrift,* 1908, p. 839) wrote that he could find no mention of it in the textbooks, and but little practical knowledge of its existence among physicians. In America it is known, but not intimately, and it has not secured for it the acclaim which would be its portion were it employed more frequently. The article by Karell in which he describes this milk cure was published in *Archives générale de médicine,* 1866, viii, 513, and apparently was entirely forgotten, and would, no doubt, have remained in obscurity, had not Jacobs *(Münchener medizinische Wochenschrift,* 1908, p. 839) reported the results obtained with it in Lenhartz's Clinic, where it had been used for about fifteen years. Just how many of the few writers on the subject have read Karell's original paper, it is impossible to say, but Jacobs has given the year of publication as 1868 instead of 1866, and his error has found its way into practically every article since 1908, so that the inference that few have read the original is perhaps justified. Possessed as it is of great practical interest and of historical interest as well, written in a peculiarly intimate manner and naïve in spirit, Karell's paper should be read at first hand."

The technic of the Karell diet is simple and easily carried out so far as the physician is concerned. The patient receives daily at 8 A. M., 12 M., and at 4 and 8 P. M., 200 c.c. of raw or boiled milk, warm or cold, according to taste. No other food or liquid should be given. Usually at the end of a week the diet is gradually increased because of the low caloric value but the diet remains relatively low in salt and water throughout the entire "cure." The diet should be given only when the patient is at rest in bed, and usually in conjunction with proper drug therapy.

In the last two years we have had the opportunity of treating a considerable number of cases of edema due to cardiac, renal, and hepatic diseases, and we are convinced of the value of diets low in water and mineral content in all cases except those associated with urea retention in the blood. The recent work of Keith, Smith, and Whelan gives confirmatory data on this point.

In practically all of the cases of renal and hepatic dropsy, with the exceptions noted below, the course is somewhat protracted, and there is no indication for a low-calorie diet such as Karell's. We have preferred, therefore, to use one of the low-salt, low-fluid diets, as outlined by Keith, Smith, and Whelan, which has nearly the same water and mineral content as the Karell diet, but which contains from 1,500 to 3,000 calories.

However, in the cases of edema due to cardiac decompensation, the Karell diet has definite value. These patients have congestion of the liver and of the gastric mucosa. They are easily nauseated and assimilate their food poorly. It seemed, therefore, that with the patient at rest in bed a low-calorie diet was advisable, and when the other factors of low salt, low water and easy digestibility were considered the Karell diet was therefore used.

In certain cases the diet was entirely satisfactory but in others the patients were opposed to it, chiefly because of thirst and the monotony of the food, but also occasionally because of the dislike of milk. For these reasons we modified the diet to include a wider variety of food, and we allowed some extra water without increasing the total fluid intake or the food value and without appreciable change in the salt content. The foods selected for the modified Karell diet are prepared without adding salt, the food being weighed and served as follows:

Breakfast	
Bread (toast)	10 grams
Ten per cent fruit (orange)	100 grams
Sugar	5 grams
Egg	1
Dinner	
Bread	10 grams
Cream soup	150 grams
Butter	5 grams
Supper	
Bread	10 grams
Milk	200 grams
Butter	10 grams
Egg	1

A comparison of the composition of the two diets acording to Sherman's tabulation shows but slight variation in the composition, the modified Karell diet, however, contains less water than the Karell diet. This allows the patient water or pellets of ice to make the total intake of fluid in water and food up to the 700 c.c. found in the Karell diet.

Composition of Diets

Diet	Carbohydrate	Protein	Fat	Water	Calcium	Magnesium	Potassium	Sodium	Phosphorus	Chlorin	Sulphur	Ferrum
Karell	40	24	32	696	0.96	0.096	1.144	0.408	0.744	0.848	0.272	0.0019
Modified Karell	53	26	40	465	0.40	0.073	0.866	0.583	0.550	0.852	0.368	0.010

The modified diet has been proved most satisfactory in the treatment of marked cardiac dropsy. The patients prefer it to the strict Karell diet and take it with little complaint for from four to six days. At the end of this time they are usually better able to assimilate their food, and they are placed on one of the higher calorie diets, with low salt and low water contents.

During the last year in the wards at St. Mary's Hospital at Rochester, Minnesota, seventeen patients have

[1]Reprinted from "The Journal of the American Dietetic Association," Vol. II, No. 4, March, 1927.

been given the Karell diet and thirty-eight the modified form. Patients have complained much less of the latter and the effectiveness of the latter is practically the same as of the former.

Summary

The Karell diet or a modified Karell diet is of definite value in the treatment of cases of marked cardiac dropsy. In our experience the modified form is the more satisfactory from the standpoint of the patient and is at the same time practical and easily served.

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Three Phases of Public Health Nursing[1]

Kathryn McGovern, R.N., Minneapolis, Minn.

ALTHOUGH systematic public health supervision is yet in a plastic stage and new improvements are being constantly made in it in order to keep up with the rapid progress in medical science, it is gratifying to note the enormous amount of good its three departments of school, home, and industrial nursing have accomplished in the promotion of public health since their inception.

In the beginning, the public-health nurse was looked at askance by the public as an unnecessary expense, and only tolerated for the time being under the impression that her day would be brief. In fact, in some communities, she met with the most determined opposition, most of which came, sad to relate, not from the lay people, but in some instances from doctors, who at first looked upon the public-health nurse as a trespasser on their particular territory.

The public-health nurse soon demonstrated her worth, however. Take for instance the school nurse: Almost from the beginning she demonstrated the beneficial results of her work in the increased attendance of the school children, a decrease in tardiness, and a marked improvement in the mental efficiency of children for whom she had procured needed medical attention. In the field of the home or visiting nurse, the worker justified her existence by reducing the death rate among adults and infants, and by promoting the happiness and wellbeing of the community, since the adjustment of many social problems comes within her scope. It was the prodigious good accomplished by the school and visiting nurses which induced the large industrial concerns of the country to add a trained nurse to their personnel. She has been able to reduce materially their "absent" record, and, like the school and visiting nurses has contributed a great deal to the social happiness of the employees, in this way increasing their industrial ability.

Far from encroaching on the territory of the doctors, the public-health nurse, in all three phases of the work, has been of vast help to them, in a material as well as a professional sense. For she has aroused the public to the necessity of frequent medical examinations for both adults and children, thus replenishing the coffers of the physician, and also giving him the opportunity, which, above all else, every conscientious doctor desires, of detecting disease in its incipient stages, when he can conquer it, and save a human life. The doctor is a soldier engaged in a grim battle with disease and death and like every other true soldier he abhors defeat. By elevating health to a place of importance in the minds of the people, the public-health nurse has contributed indirectly to the prestige of the medical profession. Doctors today recognize the value of the public-health nurse, and are giving generously of their skill and knowledge, without hope of monetary compensation, to this great work of conserving and salvaging human lives.

Of the three phases of public-health work, perhaps that of the school nurse is most important. The school nurse deals with the child in the home and community, and on the work she does today will depend the welfare of countless future generations of men and women. It is the task of the school nurse to impress upon the plastic mind of the children the great importance of health, if they are to succeed in any walk of life; that ill health detracts not only from efficiency and skill, but actually prevents one from fully appreciating the beauty and pleasures of life. Daily and constantly she holds up before them this high ideal of perfection in health, and then proceeds to teach them how to achieve and safeguard health. She does this by inspiring them to form habits of cleanliness, such as care of the teeth and daily bathing. She tells them about the value of fresh air and sunshine and the importance of having their homes and sleeping rooms thoroughly ventilated. She stresses the importance of good, wholesome food, especially fruits and vegetables, milk and eggs. Cleanliness, by the way, is one of the most trying problems the school nurse has to contend with, simple though it may seem. And the care of their children's teeth is sadly neglected, strange to say, by parents who may meticulously observe all other rules of health laid down by the school nurse.

Every morning the school nurse goes through the rooms to secure the names of absentees. She then calls at the homes of these children to investigate the cause of their absence. If it is illness, she must see that they receive the proper medical attention. If parents are too poor to provide this, she calls in other social agencies for financal help, or she can take the child to the local clinics or dispensaries where he will receive without charges skilled medical treatment. Since the school nurse must do all in her power to prevent the spread of disease and check contagion, she instructs the people in the home to that effect, and when the child is ready to return to school she examines him to make sure that he is not a source of infection or contagion.

The school nurse has first-aid equipment in her office to take care of minor ills and accidents. In cases of severe illness or serious injury she does what she can to alleviate the sufferings of the little patient until the doctor or ambulance arrives.

It is in the thickly-settled tenement districts that the school nurse meets with the most harassing problems. It

[1]Read at the Fourth Annual Convention of the I. C. G. N. at the Hospital Clinical Congress.

is here sick and death rates among children are the highest; it is here that delinquency is rampant. Here in these sections of our large cities where even vegetables, such as tomatoes, beans, and peas cannot grow because of the smoke and dust, little children are growing up, doomed to be stunted in mind and body, unless a kind fate intervenes; for even the most strenuous efforts of the school nurse and other social workers cannot make up to a child for the loss of these two great life-giving, curative agencies, pure air and sunshine in the early years of its life. Undernourishment is also a problem in these places. It is useless to talk to a mother about preparing the proper food for her children where food of any kind or quality is scarce or altogether lacking. Here the school nurse calls in other agencies to help economically. Food is provided, but the only way the handicap of fresh air and sunshine can be met is to take the child out of the home, at intervals, to some fresh air camp or to the country; or remove him altogether from the home. However, if it is humanly possible to keep the child in the home and remedy the conditions that are handicapping him, this is done. Most problems of delinquency are health problems.

The visiting nurse may well be called the angel of mercy, as she goes cheerfully to the bedside of the crippled, sick, and dying. It is impossible to measure correctly the extent of her kindly deeds, or the number of lives she has saved to usefulness and happiness. The duty of the visiting nurse is to give care and instruction to the sick in their homes on a visit basis. She cares for every type of illness, except contagion, and the care is given regardless of the economic status of the family. Of course, where the family can afford to pay they are expected to do so. Wherever she meets with a problem of financial stress she refers the case to the proper social agencies for relief. If the condition is pressing, however, and not too complex, the Visiting Nurses' Association takes care of it. In many instances, they have paid grocery and laundry bills and even provided a housekeeper during the illness of the mother of a family. Certain visiting nurses specialize in infant-welfare work. They care for the mother and infant in the home, and instruct the mother how to care for her child.

We do not hear so much about the industrial nurse, as her duties are confined to the employees of her firm. The industrial nurse is a comparative newcomer in the field of public-health work, but the fact that employers are finding the need of a trained nurse essential, especially where many women are employed, proves that this work has passed the experimental stage and is recognized as a benefit to the employer as well as the employee. All employers of industrial nurses concede that they have improved conditions enormously, cutting down the absent and tardy records and improving the morale of the employees.

Like the school nurse, the industrial nurse has an office or dispensary, equipped with every convenience for first-aid work and simple remedies for minor ills. Her duties include examination of new employees, guarding against skin and eruptive contagious diseases, visits to the homes of absent and sick employees, bringing to the attention of the doctor cases for him to examine and treat, or referring the case to local hospitals or clinics. Sometimes a doctor is called in to treat accidents and emergencies.

The industrial nurse goes through the building every day to discover any sick or absent employees, encouraging all to come to her with troubles and ailments, and she advises and counsels them to the best of her ability, not only as to themselves but to all members of their families as well. Employers have found that a great deal of physical inefficiency and sickness caused from ignorance can be eliminated by the services of a trained nurse, and the better the health of the employees the better their work. Industrial nursing has no limitation, and though the work is often trying and arduous, the satisfaction derived from the results must more than compensate.

We could enumerate many other phases of public-health work but these are probably the most important. The main objective of them all is "to help bring a fuller, happier, and more useful life to all through the active promotion of health and through the prevention of disease and suffering." This expresses the content of both the aim and the scope of the work of the public-health nurse, whether it be in the school, the home, or the great industrial establishments.

Nursing Education: Its Progress and Problems[1]

Anna Weisenhorn, R.N., Assistant Directress of Nurses, St. Francis Hospital, Evanston, Ill.

IN order to achieve a closer cooperation between all branches of our profession, it behooves us at various intervals, to exchange ideas concerning the many phases and problems confronting us. Following such a practice, we can, more easily, cooperate and thereby achieve the ends we have in view. One of the most vital and important prerequisites of a successful graduate nurse is a thorough professional training. This is not only true of the nurse of today, but will apply likewise to the nurse of tomorrow, as it has applied to the nurse of yesterday.

Unless the training we give our nurses qualifies them to meet conditions and exigencies which confront them in the practice of our profession, then such training has not attained that state of perfection for which we strive, nor is it such a preparation of our students, to whom we look for the fulfillment of our present aspirations, as will fit them to emulate commendably the example of Florence Nightingale.

Nursing education should not differ in its fundamentals from the education of other professions. In our more progressive schools there have been marked steps of improvement in their methods, yet we have many problems remaining to be solved, much progress to be made, and the improvement must be more general to prepare each member of the profession so that she may meet all responsibilities, social and professional, in a worthy and capable manner.

Our greatest fundamental prerequisite is an applicant of good, strong character, properly prepared with a four-year high-school education. Why cannot every state demand the latter as do some? Would it not raise our standard greatly if every hospital *could accept only* high-school graduates and eliminate those applicants who now are rejected in some hospitals, yet can enter others without the basic preparation which they need to grasp the sciences, even of their preliminary period, and to form a firm foundation for the work which follows? Without this foundation, the individual is frequently a poor student and hinders the advancement of the class.

Should we not demand quality rather than quantity? It is necessary in an institution, where we wish to raise the training to such that is worthy of standardization, to

[1]Read at the Fourth Annual Convention of the International Catholic Guild of Nurses at the Hospital Clinical Congress, Milwaukee, Wis., June 20-24, 1927.

bar those applicants who prove unfit, because of poor health, morals, lack of education; to eliminate, even after some months, or occasionally, years, all found not qualified to meet the requirements, the responsibilities in the classroom, on duty, in the sickroom or ward, or in their associations with patients and other nurses.

To perfect this condition, we must have cooperation, we must have similar and more ideal management in each institution. This general management would not permit a student who has been dismissed from one hospital because of the lack of qualifications, to enter another almost immediately, and be accepted even without a recommendation from a member of the faculty from the institution which dismissed her.

If we are to adhere to our demand of quality rather than quantity, it is incumbent upon us to advocate that the student nurse in every hospital devote the time spent in cleaning patients' rooms, to the study of theory, or practise of nursing. Such menial labor should be done by neatly-clad trained maids, rather than by our students.

With high-school credits as entrance requirements in all schools, we can more easily encourage postgraduate and college work, thereby giving the nurse all advantages possible to become more specially trained and to enter a field of greater intellectual culture and refinement, and by cooperation with the National League of Nursing Education, and the universities, we can crowd out incapable members, and unworthy, mercenary motives, implanting in their stead, principles of highest ideals in the nursing profession.

All too often, in the face of the mammoth task of caring for the sick, we are apt to lose sight of the equally important task of the professional and moral education of each member of the student body.

A successful school must have well-formed courses, good methods of teaching, a wisely balanced curriculum, and a staff of capable and experienced teachers and supervisors. The lecturers are usually best when they are specialists in the subjects they teach and when they are anxious or pleased to teach.

An instructress needs to have additional training and education; to be of good character and in good health; to understand the principles of psychology and sociology. She must possess tact, sympathy, and the ability to discipline, as well as to teach different subjects—yet she cannot be an expert in many lines—and so our instruction will become expert only when we moderate the demands made on the instructress.

In addition to an universal demand for higher entrance requirements and for a stronger teaching staff in the classroom, we need carefully selected and well-educated floor and ward supervisors, to perfect the important and long-accepted theory that not more than 50 per cent of the teaching is done in the classroom, and to enable the student to correlate her teachings in theory with the practical work.

Without perfect cooperation, between the classroom instructress and the floor and ward supervisors, we cannot supply skilled nursing care to the sick, nor provide the education we owe and promise to the student.

With the many demands made on the supervisor by the doctors, patients, and students, the various personalities, emergencies, and the stress of the work that must be accomplished within each 24 hours, this position needs to be held by an exceptionally well-trained, well-educated nurse of moral excellence and genuine worth. She must be able to teach the student the correlation between theory and practice and arrange the duties and responsibilities of each to have a variety of work with special training in every branch and to trace the work of the individual so as to follow the teachings of instructress, and supervisors, with the results, and to accustom each student to accept the responsibilities of life.

Our better schools and their success are proof sufficient for the discerning mind that each and every school for the training of nurses, the small as well as the older, larger ones, must accept a highly standardized curriculum, demand that all students upon entrance have the requisite fundamental qualifications necessary for the profession, introduce the best and most extensive instruction that can be given, not only by members of the faculty, but by affiliation with a university when possible, and secure experts to instruct in those fields of nursing not intimately associated with the hospital.

Intensive training without diversion contributes more to the making of a patient than to that of a nurse, and since a nurse's home, during her years of training, is the school that is providing her education, it is the duty of those to whose charge she has entrusted herself, to provide proper and adequate means of recreation.

One of the most severe, general criticisms given to nurses' schools by literate, cultured visitors of the institution is the absence of a library, or a poorly selected library.

Beside a well-chosen library, that will supply the needs of reference, recreation, and current items of interest, we ought also to supply facilities for healthful outdoor and indoor amusements and athletics, sports and exercises. This method of management tends first to secure the higher, better type of student and then, through her years of study and work, it will keep her fit for the real work of her future in the profession.

ST. ANTHONY'S HOSPITAL, LOUISVILLE, KY.

The Medical Missions

The Catholic Medical Mission Board is affiliated with the Catholic Hospital Association.
Dorothy J. Willmann, Secretary, 1819 Broadway, New York City.

THE MEETING OF THE CATHOLIC MEDICAL MISSION BOARD AT MANHATTANVILLE, NEW YORK

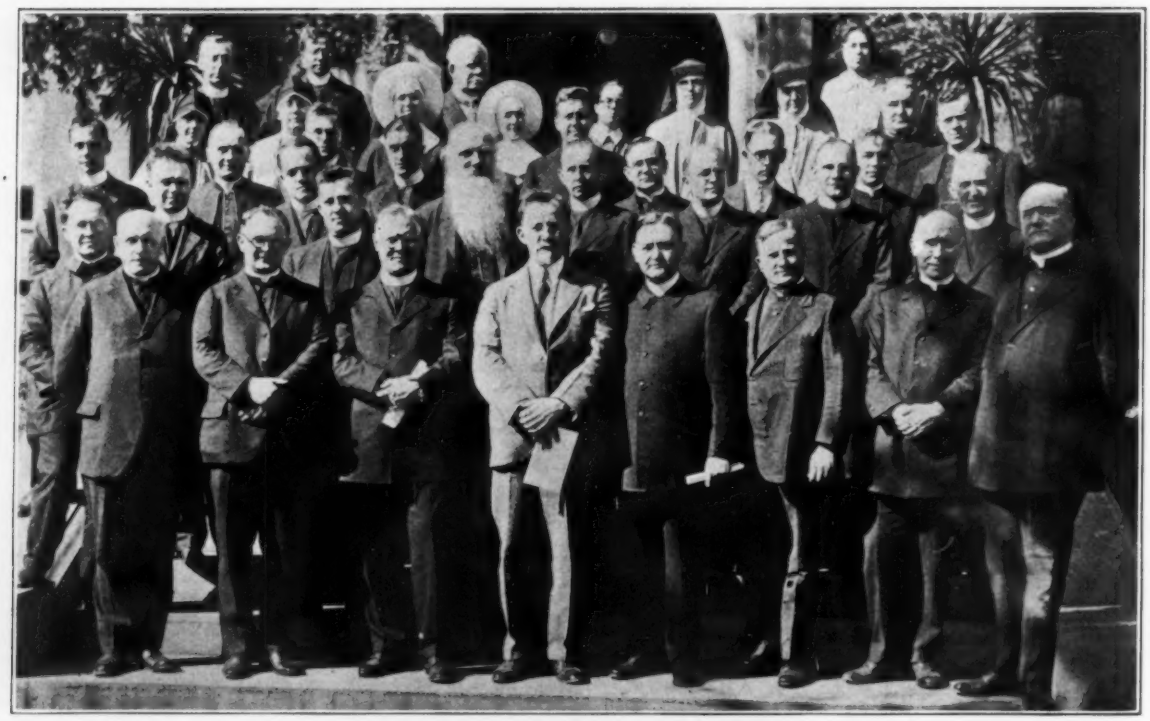
The Catholic Medical Mission Board held a very successful meeting on Saturday and Sunday, June 11 and 12, at the Convent of the Sacred Heart, Manhattanville, New York City. The meetings were attended by Superiors of Orders and Congregations which have the care of the missions, both home and foreign, Directors of the Society for the Propagation of the Faith, and other missionary agencies and interested members of the medical and nursing professions. The papers and discussions paved the way to a remodeling of the constitution and the reorganizing of the work of the Medical Mission Board which promise great fruit for the medical missions.

Through the kind hospitality of Mother Lewis and her community, those attending the conference were made welcome in the beautiful precincts of Manhattanville, and the hospitality offered them there helped greatly in making the conference a success. His Eminence, Cardinal Hayes, was to give the opening prayer, but could not be present. He sent as his representative, Right Rev. Monsignor Brady, D.D., M.D., diocesan director of Catholic hospitals. The salutation and address of welcome were given by Father Garesché, S.J., who expressed to the assembled delegates the cordial welcome of Mother Charlotte Lewis, R.S.H., and her community, who were glad to welcome a convention which promised such great glory to God and fruit for souls.

Dr. Paluel J. Flagg, the chairman of the Board, gave the report of the executive committee. The next paper on the program was on the subject of spoken propaganda in behalf of the Catholic medical missions and this subject was interestingly discussed by Rev. John A. Lynch, C.SS.R. Father Lynch has for some time past been devoting himself, with the generous approval of his father provincial, Very Rev. James Barron, C.SS.R., to giving talks, conferences, and addresses at schools, hospitals, schools of nursing, colleges, and parishes on the subject of the Catholic medical missions and the work of the Medical Mission Board. To a long experience in missionary work, Father Lynch joins a spirit of humor and enthusiastic zeal which has done a great deal to interest many in the medical side of the missions.

The next subject for discussion was on the subject of propaganda of the press. Rev. E. F. Garesché, S.J., began the discussion and laid before the meeting the proposal which had been made to the executive committee by some friends of the work that a little leaflet or periodical sheet

(Continued on page 34a)



ANNUAL CONVENTION OF THE CATHOLIC MEDICAL MISSION BOARD AT THE COLLEGE OF THE SACRED HEART, MANHATTANVILLE, N. Y., JUNE 11-12, 1927.

Front row (left to right): Rt. Rev. Wm. Stadelman, C.S.Sp., national director, Holy Childhood Association; Rev. Frank A. Thill, Ph.D., secretary-treasurer, Catholic Student's Mission Crusade; Rev. Edward F. Garesché, S.J., director, Catholic Medical Mission Board; Dr. Paluel J. Flagg, chairman, Medical Committee; Rt. Rev. Joseph F. McGlinchey, D.D., diocesan director, Society for the Propagation of the Faith in Boston; Rt. Rev. Wm. Quinn, treasurer, Catholic Medical Mission Board; Very Rev. Lawrence J. Kelly, S.J., provincial, New York-Maryland Province of Jesuits; Rev. John A. Lynch, C.SS.R., propagandist, Catholic Medical Mission Board.

Second row (left to right): Rev. Michael Mathis, C.S.C., superior Holy Cross Foreign Mission Seminary; Rev. Edward Hughes, O.P., editor of "The Torch"; Rev. Dominic Donlan, O.P., missionary from China; Rev. T. H. Van der Schueren, S.J., missionary from India; Rev. Bruno Hagspiel, S.V.D., superior, Techny Mission House; Rev. Wm. Griffin, LL.D., diocesan director, Society for the Propagation of the Faith in Newark; Rev. Paul Curran, O.P., missionary from China; Mr. Floyd Keeler; Rev. Frederick Hoeger, C.S.Sp.; Rev. I. W. Cox, S.J., Editor of "Jesuit Missions"; Very Rev. James Barron, C.SS.R., provincial, Redemptorist Fathers.

Third row (left to right): Rev. Godfrey Kaspar, S.J., Rt. Rev. Henry Verwilghen, chaplain of Manhattanville; Rev. Wm. Devine, O.M., missionary from China; Rev. John P. Skelley, associate director, Catholic Medical Mission Board.

Fourth row (left to right): Sr. Rosalind; Mother Mary Joseph, superior general, Maryknoll Sisters; Sr. Patricia, C.S.C., superior, Holy Cross Foreign Mission Sisters; Sr. Olga, C.S.C.; Dr. Anna Dengel, superior, Catholic Medical Missionary Society; Mother Gertrude, F.M.M.; Rev. Mother Emile Ange', F.M.M.; Rev. Wm. Flynn, general secretary, Marquette League; Rev. Eugene McGuinness, treasurer, Catholic Church Extension Society.

Top row (left to right): Rev. Francis LeBuffe, S.J., editor of "Thought"; Rev. Dr. De Silva, missionary from India; Dr. James J. Walsh, Ph.D., Sc. D.; Miss Dorothy J. Willmann, executive secretary, Catholic Medical Mission Board.